Educational Research

Planning, Conducting, and Evaluating Quantitative and Qualitative Research

FOURTH EDITION

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PEARSON

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Survey Designs

*M*ost *people are familiar with surveys. We often receive surveys to record opinions as voters, to register approval of consumer products, and to measure opinions about electoral candidates. To many people, survey research is simply a "survey" instrument, such as a questionnaire or interview. Although we "survey" people using an instrument in educational research, the instrument is only one aspect of a broader procedure in survey designs. This chapter defines survey research, identifies when you use it and how it developed, assesses the key characteristics of it, and advances the steps in conducting and evaluating this design.*

By the end of this chapter, you should be able to:

◆ Define survey research, and describe when to use it, and how it developed.
◆ Describe the types of survey designs.
◆ Identify the key characteristics of survey research.
◆ Describe how to construct and use a mailed questionnaire.
◆ Describe how to design and conduct an interview survey.
◆ Identify potential ethical issues in survey research.
◆ List the steps in conducting survey research.
◆ Identify criteria useful for evaluating survey research.

Maria decides to use survey research for her graduate school research project. Her research question is "What factors explain why high school students hold positive attitudes toward possessing weapons in school?" By using a survey design to answer this question, Maria seeks to describe trends in students' thinking. Her approach provides an economical and efficient means of gathering a large amount of data from many students. She randomly selects a sample of students, sends them a mailed questionnaire, analyzes the results, and draws conclusions about the population from her sample. She conducts survey research.

WHAT IS SURVEY RESEARCH, WHEN DO YOU USE IT, AND HOW DID IT DEVELOP?

With its many applications, survey research is a popular design in education. **Survey research designs** are procedures in quantitative research in which investigators administer a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviors, or characteristics of the population. In this procedure, survey researchers collect quantitative, numbered data using questionnaires (e.g., mailed questionnaires) or interviews (e.g., one-on-one interviews) and statistically analyze the data to describe trends about responses to questions and to test research questions or hypotheses. They also interpret the meaning of the data by relating results of the statistical test back to past research studies.

Survey designs differ from experimental research in that they do not involve a treatment given to participants by the researcher. Because survey researchers do not experimentally manipulate the conditions, they cannot explain cause and effect as well as experimental researchers can. Instead, survey studies describe trends in the data rather than offer rigorous explanations. Survey research has much in common with correlational designs. Survey researchers often correlate variables, but their focus is directed more toward learning about a population and less on relating variables or predicting outcomes, as is the focus in correlational research.

When Do You Use Survey Research?

You use survey research to describe trends, such as community interests in school bond issues or state or national trends about mandatory student uniform policies. You also use survey research to determine individual opinions about policy issues, such as whether students need a choice of schools to attend. Surveys help identify important beliefs and attitudes of individuals, such as college students' beliefs about what constitutes abusive behaviors in dating relationships. They may be used to follow up with graduates 5, 10, or 15 years after college to learn about their present careers. Surveys provide useful information to evaluate programs in schools, such as the success of a robotics program in science education.

How Did Survey Research Develop?

Surveys have been widely used in education for many years. Early surveys date back to 1817, when Marc Antoine Jullien de Paris designed a 34-page international survey of national education systems (De Landsheere, 1988). In the 1890s, G. Stanley Hall surveyed children, and by 1907, the Pittsburgh Survey examined social problems, including educational issues ranging from educational planning for school buildings to issues of children in classrooms who are slow learners (Bogdan & Biklen, 1998).

During the period from World War I to World War II, the modern survey as we know it began to emerge. Factors that contributed to its development were improvements in sampling techniques and the development of different scales of measurement. Surveys found wide application in many social science fields, including marketing research, journalism, public opinion research, and organizations and charities (Neuman, 2000). By midcentury, efforts were under way to establish standardized questions through surveys at the U.S. Department of Agriculture. Scales improved through the development of the Likert scale (e.g., *strongly agree* to *strongly disagree*). Also, guidelines were written for writing clear questions, standardizing interviewing questions, training interviewers, and checking for consistency among interviewers (Fowler, 2009).

During World War II, surveys examined issues central to the war effort, such as the morale of soldiers, production capacity for weapons, and the effectiveness of strategies. Through these studies, survey researchers refined and developed their techniques of large-scale assessments, enabling the emergence of large social research organizations in American universities after the war. For example, investigators established social research centers at Berkeley (Survey Research Center), at the University of Chicago (National Opinion Research Center), and at the University of Michigan (Institute for Social Research). Also, opinion polling organizations, such as Gallup, Roper, and the Rand Corporation, furthered the understanding of large-scale data collection. The founding of polling and survey organizations, combined with the use of computers, the availability of data archives and storage, and funding from the federal government, helped to establish the popularity of surveys in education by midcentury (Neuman, 2000).

In recent years, both federal and state governments have funded national and state surveys such as the Youth Risk Behavior Survey developed by the U.S. Centers for Disease Control and Prevention (Valois & McKewon, 1998). Electronic surveys such as computer-assisted telephone interviewing (CATI), voice recognition (VR), touchtone data entry (TDE), and other approaches represent innovations in self-administered questionnaires that make use of the computer and telephone (Babbie, 1998). Individuals have increasingly used Web sites and the Internet to collect survey data (Sills & Song, 2002). Survey researchers can now generate an e-mail survey, place questionnaires in word processing formats, and create a hypertext file and place surveys on Web sites (Nesbary, 2000). Electronic surveys and communications will probably revolutionize the use and applications of survey research in the future.

WHAT ARE THE TYPES OF SURVEY DESIGNS?

Despite the many applications of surveys today, there are still only two basic types of research surveys: cross sectional and longitudinal. Figure 12.1 shows that each type serves a different purpose. Survey researchers use cross-sectional designs to collect data about current attitudes, opinions, or beliefs. Longitudinal designs are used to study individuals over time.

Cross-Sectional Survey Designs

The most popular form of survey design used in education is a cross-sectional survey design. In a **cross-sectional survey design**, the researcher collects data at one point in time. For example, when middle school children complete a survey about teasing, they are recording data about their present views. This design has the advantage of measuring current attitudes or practices. It also provides information in a short amount of time, such as the time required for administering the survey and collecting the information.

Cross-sectional designs are of several types. A cross-sectional study can *examine current attitudes, beliefs, opinions, or practices*. Attitudes, beliefs, and opinions are ways in which individuals think about issues, whereas practices are their actual behaviors. For example, three authors conducted a survey of the practices of reading teachers in elementary schools (Morrison, Jacobs, & Swinyard, 1999). The purpose of the study was to relate the personal, recreational reading of elementary teachers to their literacy instructional practices. Using a list of elementary teachers nationwide (obtained from a professional mailing list company), the researchers mailed 3,600 questionnaires to a probability sample. Of this sample, 52.3% responded to the four-page questionnaire consisting of

FIGURE 12.1

Types of Cross-Sectional and Longitudinal Survey Designs

Time of Data Collection

Study Over Time | Study at One Point in Time

Longitudinal | Cross-sectional

| Trends in the same population over time | Changes in a subpopulation group identified by a common characteristic over time | Changes in the same people over time | Attitudes and practices | Community needs | Program evaluation |

| Trend | Cohort | Panel | | Group comparisons | National assessment |

21 questions and several items asking for demographic information such as gender, age, and years of teaching experience. Overall, the authors concluded that teachers who saw themselves as readers were more likely than teachers who did not see themselves as readers to use recommended literacy instructional practices (e.g., "read aloud a picture book to your class," p. 88).

Another cross-sectional design *compares two or more educational groups* in terms of attitudes, beliefs, opinions, or practices. These group comparisons may compare students with students, students with teachers, students with parents, or they may compare other groups within educational and school settings. For example, one study compared 98 rural and urban secondary school teachers from 11 school systems in Georgia and North Carolina in terms of their sources of stress and symptoms of burnout (Abel & Sewell, 1999). This group consisted of 52 rural teachers and 46 urban teachers (a nonprobability sample) who volunteered to participate in the study. The researchers delivered packets that included two instruments, the Sources of Stress Questionnaire and the Maslach Burnout Inventory, to participating school districts. The teachers mailed the instruments back to the researchers. The statistical analysis of the data showed significantly greater self-reported stress for urban teachers than rural teachers because of poor working conditions and poor staff relations.

A cross-sectional design can *measure community needs* of educational services as they relate to programs, courses, school facilities projects, or involvement in the schools or in community planning. For example, community needs of Hispanic, Spanish-monolingual residents in Florida were studied by Batsche, Hernandez, and Montenegro (1999). The authors felt that survey researchers used methods for reaching Hispanic residents that were more appropriate for non-Hispanic residents. To correct this problem, they designed procedures for an assessment interview survey for identifying needs and priorities for human service programs in the Tampa Bay, Florida, area. For example, they used the name "Hispanic" because the survey participants accepted this term. The instrument allowed individuals to identify themselves both by race and ethnicity. To identify the population to study, clubs and organizations were contacted by mail and asked to provide lists of

individuals known to be Spanish-monolingual. The researchers first translated the instrument into Spanish and had it reviewed by the local Hispanic community, who translated it back into English to identify discrepancies. The researchers also conducted public meetings to explain the purpose and importance of the needs assessment. Further, the researchers scheduled the times of the interviews to avoid religious events and cultural holidays observed by the Hispanic residents.

Some cross-sectional designs *evaluate a program,* such as a survey that provides useful information to decision makers. In one study, students (and their parents) who had completed a suburban community college enrollment options program responded to surveys evaluating the program (Kiger & Johnson, 1997). This college option provided opportunities for high school students to enroll in the community college. A 23-item survey asked the students and their parents their perceptions, such as whether the program helped "formulate long-term educational goals" (p. 691). An overall positive relationship resulted between student and parent perceptions, although their perceptions differed. Parents wanted the students to use the program as a "hands-on" career identification and planning tool, but students saw the program as an opportunity to "try out" the role of being a college student.

A final type of cross-sectional design is a large-scale assessment of students or teachers, such as a *statewide study or a national survey* involving thousands of participants. For example, the Higher Education Research Institute at the University of California at Los Angeles conducted a faculty survey in 1992–1993 of all operating institutions of higher education, which totaled 2,582 colleges and universities. The four-page instrument assessed many factors about faculty members and resulted in a sample of 29,771 full-time college and university faculty. Dey and Hurtado (1996) analyzed this national data to examine attitudes toward institutional attempts to regulate forms of on-campus speech. They found that the majority of faculty supported the prohibition of "hate speech" on campus but were much less likely to support the right of administrators to ban extreme speakers.

Longitudinal Survey Designs

An alternative to using a cross-sectional design is to collect data over time using a longitudinal survey design. A **longitudinal survey design** involves the survey procedure of collecting data about trends with the same population, changes in a cohort group or subpopulation, or changes in a panel group of the same individuals over time. Thus, in longitudinal designs, the participants may be different or the same people. An example of the study of the same people would be research about high school graduates and their current occupation (e.g., student, food service worker, insurance agent) 1, 2, and 5 years after graduation. Another example of a longitudinal design would be a follow-up with graduates from a program or school to learn their views about their educational experiences. Several types of longitudinal designs are available to the educational researcher, including trend, cohort, and panel designs (Babbie, 1998).

Trend Studies

In some surveys, researchers aim to study changes within some general population over a period of time (Babbie, 1998). This form of longitudinal research is called a trend study. **Trend studies** are longitudinal survey designs that involve identifying a population and examining changes within that population over time. A popular example of this design is the Gallup Poll, which is used during elections to monitor trends in the population of voters from the primary to the final election. Applied to education, this type of study might focus on high school seniors (a population) and study the trends of their attitudes toward dating during the years 2001, 2002, and 2003. In this study, different seniors are

studied each year, but they all represent the same population (high school seniors). The researcher can use this data to assess how trends change over time.

Cohort Studies

Rather than studying changing trends in a population, the researcher may be interested in identifying a subgroup in the population, called a *cohort,* that possesses a common defining characteristic. A **cohort study** is a longitudinal survey design in which a researcher identifies a subpopulation based on some specific characteristic and then studies that subpopulation over time. All members of the cohort must have the common characteristic, such as being 18 years old in the year 2001. If age is that characteristic, the researcher studies the group *as the group ages.* For example, a cohort group of 18-year-olds is studied in the year 2001. Five years later (in 2006), a group of 23-year-olds is studied. (They may or may not be the same individuals studied in 2001.) Five years after that (in 2011), a group of 28-year-olds is studied. While the individuals studied each time might be different, they must have been 18 years old in the year 2001 to qualify as representatives of the cohort group.

Panel Studies

A third type of longitudinal survey design is the panel study design. Distinct from both the trend and the cohort study, a **panel study** is a longitudinal survey design in which the researcher examines the same people over time. The high school seniors studied in 1998 will be the same people studied in 2000, 1 year after graduation, and again in 2002, 2 years after graduation. One disadvantage of a panel design is that individuals may be difficult to locate, especially 2 years after graduating from high school. The advantage to this type of study, however, is that the individuals studied will be the same each time, allowing the researcher to determine actual changes in specific individuals. Because of this, the panel study is the most rigorous of the three longitudinal designs.

Let's look at an actual study in which two authors used a longitudinal panel design to examine how adolescents with learning disabilities made the transition from vocational–technical schools to work (Shapiro & Lentz, 1991). The authors surveyed two groups of high school seniors: one with learning disabilities and one without learning disabilities. They were surveyed at graduation and at 6-, 12-, and 24-month intervals after graduation to learn about their occupational and living experiences. The surveys were sent to seniors who graduated in 1986 and 1987. At graduation, both groups held remarkably similar future plans. Only 50% of the individuals with learning disabilities, however, indicated they had specific future plans at graduation. The group with learning disabilities also had lower rates of enrollment in education after high school than the other group did. Further, only about half of all the students studied felt that their training in high school related to their work after graduation.

WHAT ARE THE KEY CHARACTERISTICS OF SURVEY RESEARCH?

Whether a survey design is longitudinal or cross-sectional, there are key characteristics of both that will help you design a survey or read and evaluate a published survey study. Survey researchers engage in the processes of:

◆ Sampling from a population
◆ Collecting data through questionnaires or interviews

◆ Designing instruments for data collection

◆ Obtaining a high response rate

Sampling from a Population

Survey researchers typically select and study a sample from a population and generalize results from the sample to the population. We need to first define three terms: the population, the target population or sampling frame, and the sample. Figure 12.2 shows the differences among these three terms. At the broadest level is the *population,* in which a group of individuals possesses one characteristic that distinguishes them from other groups. For example, we might have a population made up of high school teachers, individuals who all teach in high schools, or school counselors, individuals who occupy counselor positions in all levels of educational schools. At a more specific level, researchers do not always study an entire population, either because they cannot identify the individuals or because they cannot obtain lists of names. (Lists are used when mailing out a questionnaire.) In practical, operational terms, researchers study a *target population* (sometimes called the *sampling frame*). This is the list or record of individuals in a population that a researcher *can* actually obtain. For example, researchers might obtain a list of all secondary high school teachers in one school district. This list constitutes the target population or sampling frame. From the target population, researchers choose a sample. At the most specific level, researchers select a *sample* from the target population. These individuals are the people studied.

The most rigorous form of sampling is to use random sampling by employing a procedure such as using a random numbers table. In this process, the researcher selects a sample representative of the population so that claims or inferences can be drawn from the sample to the population.

In survey research, it is important to select as large a sample as possible so that the sample will exhibit similar characteristics to the target population. Also, in survey studies,

FIGURE 12.2

Differences between the Population, Target Population or Sampling Frame, and Sample

The **Population**
is the group of individuals having one characteristic that distinguishes them from other groups.

The **Target Population** or Sampling Frame is the actual list of sampling units from which the sample is selected.

The **Sample** is the group of participants in a study selected from the target population from which the researcher generalizes to the target population.

it is sometimes difficult to obtain a good list of the target population. For example, lists of individuals who belong to high school gangs or all left-handed individuals would not be easy to obtain. In many cases, however, the target population can be identified for study, and after several attempts, a good list of individuals for the target population can be compiled. It is also possible in survey research to study the entire population because it is small (e.g., members of literacy councils in a state) and can be easily identified. This type of survey study, sometimes called a *census study,* permits conclusions to be drawn about the entire population. Therefore, random sampling, hypothesis testing, and the use of inferential statistics are not necessary. For this type of study, survey researchers simply report descriptive statistics about the entire population.

When researchers select a sample from a population, however, certain factors may limit a survey researcher's ability to draw valid inference from the sample to the population. Salant and Dillman (1994) identified several factors in good survey research that may compromise drawing these inferences:

◆ *To reduce coverage error, have a good sampling frame list on which to select individuals.* When researchers use a good, complete list, their coverage of the population is adequate and not error prone.
◆ *To reduce sampling error, select as large a sample from the population as possible.* The larger the sample, the more the participants will be representative of the entire population and reflect attitudes, beliefs, practices, and trends of the population. Recognize that all samples selected will be only estimates of population values.
◆ *To reduce measurement error, use a good instrument, with clear, unambiguous questions and response options.* Such instruments will encourage individuals to respond and answer correctly. Later in this chapter, we discuss how to construct a questionnaire to reduce this error.
◆ *To reduce nonresponse error, use rigorous administration procedures to achieve as large a return rate as possible.* Later in this chapter, we discuss these procedures.

Questionnaires and Interviews

Although many different forms of surveys exist, survey researchers typically collect data using two basic forms: questionnaires and interviews. Researchers need to consider the forms and weigh the advantages and disadvantages of each. You can distinguish these forms by examining who completes or records the data on the instrument: the participants (called *respondents* or *interviewees*) or the researcher (see Figure 12.3). A **questionnaire** is a form used in a survey design that participants in a study complete and return to the researcher. The participant chooses answers to questions and supplies basic personal or demographic information. An **interview survey**, however, is a form on which the researcher records answers supplied by the participant in the study. The researcher asks a question from an interview guide, listens for answers or observes behavior, and records responses on the survey. The quantitative interview procedures, discussed here, are not to be confused with qualitative interviewing. In *quantitative survey interviews,* the investigator uses a structured or semistructured interview consisting of mostly closed-ended questions, provides response options to interviewees, and records their responses. In *qualitative survey interviews,* an interviewer asks open-ended questions without response options and listens to and records the comments of the interviewee.

Several different types of questionnaires and interviews are used in quantitative survey research. Here we will highlight the major types used in education:

◆ Mailed questionnaires
◆ Web-based questionnaires

FIGURE 12.3

Who Completes or Records the Data?
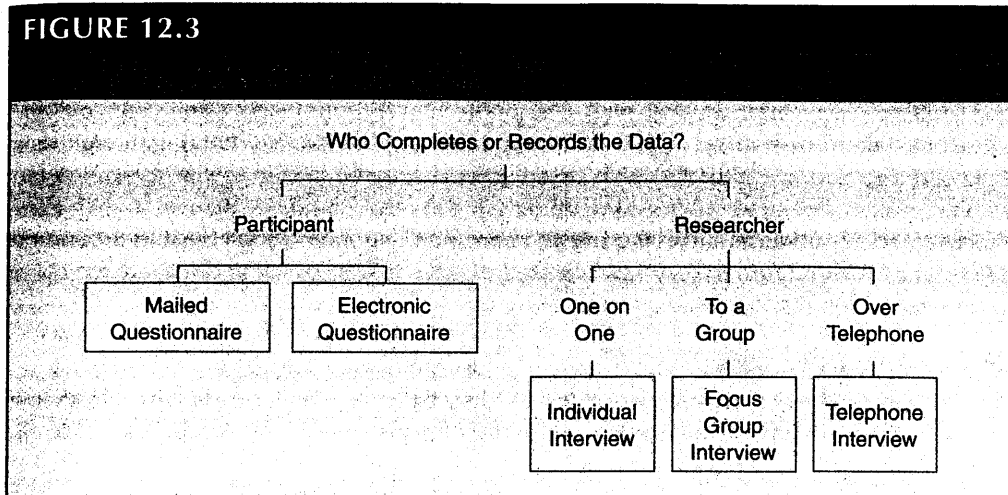
- One-on-one interviews
- Focus group interviews
- Telephone interviews

Mailed Questionnaires

A **mailed questionnaire** is a form of data collection in survey research in which the investigator mails a questionnaire to members of the sample. Researchers might develop their own questionnaire, modify an existing one, or use one that they have located in the literature. The process consists of locating or developing a questionnaire, sending it out to the sample of the population, using repeated contacts with the sample to obtain a high response rate, checking for potential bias in responses, and analyzing the data. (These procedures are discussed later in this chapter.)

A mailed questionnaire is a convenient way to reach a geographically dispersed sample of a population. The mail facilitates quick data collection, often in as little time as 6 weeks from the first mailing to the conclusion of data collection. A mailed questionnaire is economical because it involves only duplication and mailing expenses. The disadvantage of mailed questionnaires is that individuals may lack any personal investment in the study and decide not to return the instrument. Also, because the researcher does not have a means for explaining questions, participants may misinterpret items on the survey.

Web-Based Surveys or Questionnaires

With increased use of Web sites and the Internet, Web-based questionnaires are becoming popular. A **Web-based questionnaire** is a survey instrument for collecting data that is available on the computer. Several software programs are available for designing, gathering, and analyzing survey data with sample questions and forms (e.g., see Qualtrix at **http://www.qualtrics.com/survey-software/** or Survey Monkey at **http://www.surveymonkey.com/**).

Educational researchers need to weigh the advantages and disadvantages of using a Web-based survey. On the positive side, such surveys can gather extensive data quickly, employ tested forms and sample questions rather than having to design them, and take advantage of the extensive use of the Web by individuals today, including its use as a site for social networking. However, authors such as Sills and Song (2002) raise important

methodological issues that educational survey researchers need to consider. They were concerned about the low response rates from e-mail and Web-based surveys. Contributing to this problem were nonrandom sampling, technological problems, security issues, and problems with Internet junk mail. They note that Internet users often change e-mail addresses. Often surveys are not based on random sampling so that drawing inferences to a general population is difficult. Web-based surveys may be biased toward certain demographic groups that tend to use computers. On the other hand, Web surveys may allow effective and economical surveying of the entire population and thereby skirt around the inference problem. Further, they saw a mixed system of Web-based and mailed surveys as promoting a high response rate.

One-on-One Interviews

One-on-one interviews are a form of survey data collection. In **one-on-one interviewing in survey research**, investigators conduct an interview with an individual in the sample and record responses to closed-ended questions. The process involves developing or locating an instrument and training the interviewer(s) in good interview procedures. This training consists of learning how to provide instructions during the interview, maintaining confidentiality about the interview, asking the exact question on the interview guide, completing the interview within the time allocated, being courteous, and not interjecting personal opinions into the interview. When multiple interviewers are used, researchers train all individuals to use the same procedure so that the mode of administration does not introduce bias into the study.

One-on-one interviews are useful for asking sensitive questions and enabling interviewees to ask questions or provide comments that go beyond the initial questions. Interviews lead to a high response rate because researchers schedule the interviews in advance and sample participants typically feel obligated to complete the interview. However, one-on-one interviews do not protect the anonymity of the participant as questionnaires do. Researchers may also prejudice participant answers, knowingly or unknowingly, through either comments or body language. Also, not all interviewees are comfortable disclosing information about themselves during the interview.

Focus Group Interviews

An alternative to a one-on-one interview is to administer a survey to a focus group. In quantitative **focus group interviews in survey research**, the researcher locates or develops a survey instrument, convenes a small group of people (typically a group of 4 to 6) who can answer the questions, and records their comments on the instrument. For example, this group might consist of parents who evaluate a new math or science curriculum in a school. Alternatively, international students provide views about cultural integration into an American university setting. During processes such as these, researchers ask the group questions on an instrument and record or take notes on the group conversation.

Focus groups provide for interaction among interviewees, collection of extensive data, and participation by all individuals in a group (Krueger, 1994). A disadvantage of focus group interviews is that they require the researcher to find consensus on questions so one score can be marked for all individuals in the group. In addition, some individuals may dominate the conversation, leading to responses that do not reflect the consensus of the group.

Telephone Interviews

In **telephone interview surveys**, the researcher records the participants' comments to questions on instruments over the telephone. The researcher develops or locates an instrument, obtains the telephone numbers of participants in the sample, conducts the

telephone calls, and asks the participants to answer questions on the instrument. Telephone interviews allow the researcher easy access to interviewees who are geographically dispersed. However, the researcher cannot see any nonverbal communication on the part of the participant, and people often dislike telephone contacts because of their prior personal experiences with calls from survey firms asking for information.

Assume that you advise Maria on the type of survey data collection she should use to study factors that explain why students hold positive attitudes toward weapon possession in the school. Should she use (a) a mailed questionnaire, (b) an electronic questionnaire, (c) one-on-one interviews, (d) focus group interviews, or (e) telephone interviews? Write down your answer and provide a rationale for your choice, then look at my answer below.

I would advise Maria to consider the sensitive nature of her study and realize that students need to have their anonymity protected. A mailed questionnaire would provide the greatest protection to students, and Maria could say that she will not identify individuals with survey responses in her report. To keep track of students who respond to the survey, she might enclose a postcard with a student identification number on it that the students return separately from their survey.

Instrument Design

Designing good survey instruments is a challenging and complex process. You should first consider whether a survey instrument is available to measure your variables. You might also consider modifying an existing instrument. If neither of these approaches will work, design your own instrument.

When survey researchers design an instrument for data collection, they typically perform the following steps:

1. *They write different types of questions.* These include personal, attitudinal, and behavioral questions; sensitive questions; and closed- and open-ended questions.
2. *They use strategies for good question construction.* This includes using clear language, making sure the answer options do not overlap, and posing questions that are applicable to all participants.
3. *They perform a pilot test of the questions.* This consists of administering the instrument to a small number of individuals and making changes based on their feedback.

Personal, Attitudinal, and Behavioral Questions

Consider the general forms of the types of *content* that questions might take on a survey instrument. There are three popular types. *Background* questions or *demographic* questions assess the personal characteristics of individuals in your sample. These questions can be easy (i.e., gender) or difficult to answer (i.e., level of income). Here are some examples of background questions:

What is your age? _____
How many years of teaching have you completed? (end of school year) _____

A second group of questions relates to obtaining individual *attitudes or opinions* from individuals in your sample. For example, you might ask:

How much do you agree or disagree with this statement:

Most days I am enthusiastic about being a student.
_____ Strongly agree
_____ Agree
_____ Neither agree or disagree

_____ Disagree

_____ Strongly disagree

A third group of questions can solicit information about the actual *behavior* of individuals in the sample. For example:

Did you take a semester off during any of your 4 years of college?

_____ Yes

_____ No

Sensitive Questions

Some surveys contain sensitive questions that must be developed and used with care. Sensitive questions might have to do with:

◆ Drug and alcohol use (e.g., use of cocaine)
◆ Mental health issues (e.g., paranoid behavior)

Depending on your topic, you may decide to use sensitive questions. If the questions are not tactfully stated, individuals may either over- or underrepresent their views, leading to bias in responses. Several strategies can be used to provide good questions (Neuman, 2000). You might include a sensitive question late in the survey, after the individual has "warmed up" by answering neutral questions and has established some rapport with the researcher. Also, initial comments can lead the respondent into the question:

Instead of: Have you ever used marijuana?

You might ask: In past surveys, many men have reported that at some point in their lives they have used marijuana. This could have happened before adolescence, during adolescence, or as an adult. Have you ever smoked marijuana?

Open- and Closed-Ended Questions

Surveys consist mainly of closed-ended questions. In **closed-ended questions in surveys**, the researcher poses a question and provides preset response options for the participant. A closed-ended question might be:

There are many reasons why adults wish to get more education. What is your most important reason for coming to adult basic education classes? (Check one.)

_____ To be able to help my children with their schoolwork

_____ To get a better job

_____ To improve myself

_____ To get a high school equivalency diploma

Here, the author provides a question followed by a limited number of response options. These options need to be mutually exclusive, or distinct from each other, and include the typical responses an individual might provide.

Closed-ended questions such as the example above are practical because all individuals will answer the question using the response options provided. This enables a researcher to conveniently compare responses. They are useful for sensitive questions because participants might feel more comfortable knowing the parameters of response options. Closed-ended questions also provide a means for coding responses or assigning a numeric value and statistically analyzing the data.

At times, however, you may want to probe a little deeper and explore the many possibilities that individuals might create for a question. In this case, open-ended questions are best. **Open-ended questions in a survey** are questions for which researchers do not

provide the response options; the participants provide their own responses to questions. For example:

Why are you attending adult education classes? _____

_____

_____

_____

In an open-ended question, the participant supplies an answer. This question does not constrain individual responses. It is ideal when the researcher does not know the response possibilities and wants to explore the options. Further, open-ended questions allow participants to create responses within their cultural and social experiences instead of the researcher's experiences (Neuman, 2000).

However, open-ended questions have drawbacks of coding and analysis. The researcher needs to categorize the responses into themes, a process that may take considerable time. Open-ended responses require transforming word responses into numbers (e.g., participants mentioned "getting a better job" 15 times).

One further option is the use of **semi-closed-ended questions in a survey**. This type of question has all the advantages of open- and closed-ended questions. The technique is to ask a closed-ended question and then ask for additional responses in an open-ended question. For example:

There are many reasons why adults wish to further their education. What is your most important reason for coming to adult basic education classes? (Check one.)

_____To be able to help my children with their schoolwork

_____To get a better job

_____To improve myself

_____To get a high school equivalency diploma

_____Other (please comment)_____

This question provides the typical response categories to the question, but it also allows respondents to write in answers that may not fit the response choices. While it also provides limited open-ended information to encourage responses, it does not overburden the researcher with information that needs to be coded.

Question Construction

As you select an instrument or develop one of your own, pay attention to the quality of the questions. Using good questions helps participants feel that they understand the question and can provide meaningful answers. Good questions are clear and unambiguous, and they do not confuse the participants. They also show respect for the participant by being sensitive to gender, class, and cultural needs of participants. For example, in the community needs survey mentioned earlier (Batsche et al., 1999), the researchers used the term *Hispanic* out of respect for what the Spanish-monolingual residents preferred to call themselves. By using good questions, you are encouraging the participant to complete the instrument.

When you construct questions for a survey questionnaire or interview, fit the questions to answers, include suitable response options, and do not overlap. These strategies for constructing good questions are identified in Table 12.1. First, read the poor question. Next, determine the problem. Then, read the improved question. When you write questions (or review those provided by others), you might assess them in terms of whether your question is clear, has a clear response, and whether your questions are within the

TABLE 12.1

Common Problems in Item Construction in Survey Design

Example of a Poor Question	Problem	Example of an Improved Question
Do you support gun control? _____ Yes _____ No _____ Don't know	Unclear question because of vague words	Do you believe that guns do not belong in schools? _____ Yes _____ No _____ Don't know
Do you believe that guns and knives do not belong in schools? _____ Yes _____ No _____ Don't know	Two or more questions (see the conjunction "and")	Do you believe that knives do not belong in schools? _____ Yes _____ No _____ Don't know
Whenever violence occurs in schools, weapons are typically found in school lockers. Do you believe that students should have guns in their lockers? _____ Yes _____ No _____ Don't know	Wordy or lengthy questions	Should students have guns in their lockers? _____ Yes _____ No _____ Don't know
Students should not carry weapons and not have them in their lockers. Do you agree? _____ Strongly agree _____ Agree _____ Undecided _____ Disagree _____ Strongly disagree	Question contains negatives	Should students have guns in their lockers? _____ Yes _____ No _____ Don't know
Should students pack a .45 at school? _____ Yes _____ No _____ Don't know	Question contains jargon	Should students carry a handgun at school? _____ Yes _____ No _____ Don't know
How many times have you seen a student carry a handgun? _____ 0 times _____ 1–2 times _____ 2–3 times _____ More than 3 times	Response categories overlap	How many times have you seen a student carry a handgun? _____ 0 times _____ 1–2 times _____ 3–4 times _____ More than 4 times
To what extent do you feel that handguns are a problem at your school? _____ A great extent _____ Some _____ Not very important _____ Not a problem	Unbalanced response options	To what extent do you feel that handguns are a problem at your school? _____ A great extent _____ Some extent _____ Little extent
To what extent do you feel that handguns are a problem at your school? _____ Very important _____ Important _____ Little importance	Mismatch between the question and the responses	To what extent do you feel that handguns are a problem at your school? _____ A great extent _____ Some extent _____ Little extent

TABLE 12.1

Complete poor question	Problem	Example of a better question
How often have you seen students carry semi-automatic weapons at school? _____ None _____ 1 time _____ 2 times _____ 3 or more times	Respondent does not have understanding to answer question	How often have you seen students carry a rifle at school? _____ None _____ 1 time _____ 2 times _____ 3 or more times
How many students have you seen carrying guns at school? _____ 1 student _____ 2 students _____ 3 students _____ More than 3 students	Not all respondents can answer the question—branching needed	Have you seen students carrying guns at school? _____ Yes _____ No → If Yes, how many students? _____ 1 student _____ 2 students _____ 3 students _____ More than 3 students

participants' ability to answer. A review of these potential question construction problems and some solutions will provide guidance for survey development.

◆ *The question is unclear.* This usually occurs because words are vague or imprecise. Identify the unclear or vague words and replace them with words understood by participants in the study.
◆ *There are multiple questions.* Here, the question actually contains two or more questions, called a *double-* or *triple-barreled question.* Reduce the multiple questions to a single question.
◆ *The question is wordy.* When the question is too long, cut out unnecessary words to simplify and shorten the question. Look for excessive use of prepositions (e.g., more than three) or qualifying statements that lengthen the question.
◆ *The question is negatively worded or wordy.* If the question contains one or more negatives, such as "should not," the meaning becomes unclear. Also, reword the question if it leads the participants to one particular stance or another (e.g., using the word "pro-life"). Restate or reword the question to eliminate negative connotations or leading words.
◆ *The question includes jargon.* Jargon may not be familiar to all participants in a study. Eliminate the jargon and use words familiar to all participants.
◆ *There are overlapping responses.* This may lead to confusion when answering a question. Make sure that the response options do not overlap by creating distinct options.
◆ *There are unbalanced response options.* In this case, the responses may be unbalanced in terms of naturally occurring intervals. Response options may start with an "importance" word (e.g., "very important") and end with an "extent" word (e.g., "to a little extent"), rather than a matching adjective (e.g., "not important"). Decide on a single response option and use it consistently for all response categories for a question.
◆ *There is a mismatch between the question and the answers.* The responses may not match the "action" word used in the question. Identify the verb or adjective in the question that will be the basis for the response options and create options using this word. (E.g., if the question says "to what extent," the answer will say "a great extent.")

- *The question includes overly technical language.* When this occurs, the respondent may not have the level of understanding needed to respond to the question. Simplify the question so that all individuals will know the meaning of the words and can respond to the question.
- *Not all questions are applicable to all participants.* If some participants cannot answer the question, include "branching" or "contingency questions." These questions follow the original question and provide options to include all participants.

Pilot Testing the Questions

After good questions have been developed using principles of question construction, a researcher pilot tests the questions. This helps determine that the individuals in the sample are capable of completing the survey and that they can understand the questions. A **pilot test** of a questionnaire or interview survey is a procedure in which a researcher makes changes in an instrument based on feedback from a small number of individuals who complete and evaluate the instrument. The participants in the pilot test provide written comments directly on the survey, and the researcher modifies or changes the survey to reflect those concerns. Because the pilot group provides feedback on the questionnaire, you exclude them from the final sample for the study.

For example, a survey of 100 middle school students' attitudes toward school might begin with a pilot test of an instrument with 50 questions. In this pilot test, the researcher selects 15 students to complete the instrument. The investigator then asks them to mark any problems on the survey, such as poorly worded questions, responses that do not make sense, or if it takes an excessive amount of time to complete the instrument. Based on student feedback, the researcher then revises the instrument before sending it out to the sample in the study.

Response Rate

Survey researchers seek high response rates from participants in a study so that they can have confidence in generalizing the results to the population under study. When using interviews, the response rate is high because individuals interviewed typically consent to the interview in advance. However, when questionnaires are used, the number of responses returned (through mail or electronically) will vary. In either case, survey researchers place emphasis on obtaining a high response rate to their questionnaire or interview. On the instruments that are returned, the survey researcher is also concerned about whether the returned responses are biased. Even a small return rate may not be biased and be acceptable in survey research. Although response rate is important, bias is a larger concern than return rate because if the returned responses are biased, the database will be inadequate, regardless of the return rate.

Response Rates for Mailed Questionnaires

As mentioned earlier, a high response rate creates a stronger claim in generalizing results from the sample to the population. A **response return rate** is the percentage of questionnaires that participants return to the researcher. Many survey studies in leading educational journals report a response rate of 50% or better. However, this rate will fluctuate depending on proper notification, adequate follow-up procedures, respondent interest in the study, the quality of the instrument, and use of incentives.

Researchers use several strategies to encourage high return rates. One is to *prenotify* *participants* that they will receive a questionnaire. Individuals receive an introductory letter asking them to participate in the study and telling them that they will receive a survey

FIGURE 12.4
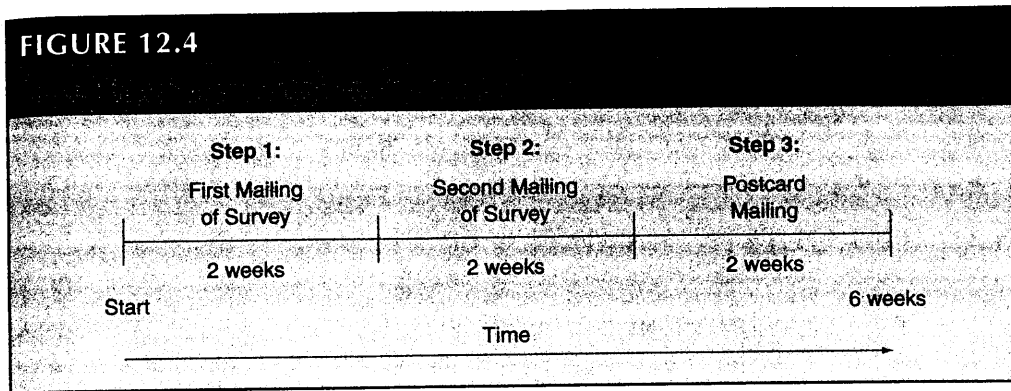
in 2 weeks. Another strategy is to use *good follow-up procedures*. Figure 12.4 shows a three-step procedure that might be used.

1. Mail out the original questionnaire.
2. Follow it 2 weeks later with a second questionnaire to the individuals who have not responded (called *nonrespondents*).
3. After another 2 weeks, send a postcard to the nonrespondents, reminding them to complete the questionnaire.

Although you might take additional steps, this three-step process should help you attain a good return rate. The time for each notification will vary, of course, depending on the study. For most questionnaires mailed within the United States, however, this format should allow the researcher to conclude data collection in 6 weeks.

Another way to encourage a high response rate is to *study a problem of interest* to the population under study. If individuals in the sample are interested in the issue, they will be more apt to complete the survey. Also, *using a brief instrument* usually encourages a high return rate. Typically, a three-page instrument will take less than 15 minutes to complete.

A final strategy is to *consider the use of incentives* to encourage individuals to return the instrument. Studies show mixed results on the impact of incentives, even small ones like giving enough money for a cup of coffee (Babbie, 1998). As a researcher, you need to weigh the costs of incentives against their potential help with returns. In many cases, survey researchers combine many of the strategies mentioned so far—prenotification, follow-up procedures, and clear instrument constructions—with modest incentives to encourage high returns.

Response Bias

What do you do if your response rate is low? You might proceed with your study and report a limitation of a low response rate; extend the time to collect data to gather more responses; or report that your responses, although low, are representative of the sample (and population). This last option is response bias. With a low return rate, the key issue is not necessarily how many people returned an instrument, but whether bias exists in those who *did* return it. **Response bias** occurs in survey research when the responses do not accurately reflect the views of the sample and the population. For example, the individuals who return a questionnaire may be overly negative or positive. Thus, survey researchers monitor their returns to assess whether they display bias. We call this approach wave analysis. **Wave analysis** is a procedure to check for response bias in which investigators group returns by intervals (e.g., each week) and check to see if the answers to a few select questions change from the first week to the final week in a study, indicating response bias. Individuals responding in the final week of survey administration are as close to nonreturns or nonrespondents as possible. However, their responses

should be similar (i.e., and not biased) to those returning instruments in the first week. If they differ, researchers report that the potential for bias exists, and the potential that the participants studied may not be representative of the sample and the population.

HOW DO YOU CONSTRUCT AND ANALYZE A MAILED QUESTIONNAIRE?

Because of the popularity of mailed questionnaires for student research projects, they deserve special attention. We will focus on three aspects of using mailed questionnaires:

◆ A cover letter to invite participants to complete the questionnaire
◆ The form and construction of the questionnaire
◆ Statistical procedures typically used to analyze data from a mailed questionnaire

We use a mailed questionnaire from VanHorn-Grassmeyer (1998) as a specific example. VanHorn-Grassmeyer studied 119 individuals new to the field of student affairs (e.g., student activity leaders) in colleges and universities in the central United States and Canada. Her purpose was to explore the perceptions, attitudes, and behaviors of professionals regarding their professional practices. As one aspect of her data collection, she mailed a self-designed questionnaire to the participants. This instrument consisted of five parts:

1. A cover letter
2. Closed-ended questions asking participants about their background (i.e., demographic questions)
3. Closed-ended questions addressing practices or behaviors (e.g., "I claim responsibility when I've made a 'bad call' professionally") and attitudes (e.g., "I benefit from collaborative reflection with colleagues")
4. Open-ended questions permitting respondents to add their perceptions (e.g., "In your opinion, what defines a competent student affairs professional?")
5. Closing instructions thanking the participant for taking part in the study

This cover letter and mailed questionnaire comprised a five-page packet, which can be seen in Figures 12.5 and 12.6 as they were originally reported in VanHorn-Grassmeyer's dissertation.

Inspecting these examples can provide useful ideas for designing your own cover letter and questionnaire.

The Cover Letter

A major component of a mailed questionnaire consists of a cover letter inviting the participant to take part in the study and to complete the instrument. When we inspect the cover letter in Figure 12.5, we find these major elements:

◆ *Importance of participant.* To encourage individuals to complete the questionnaire, they need to know why they have been sent the instrument. The first few sentences indicate the importance of recipients and the value of their response. It is often helpful to begin a cover letter with this statement, as illustrated in this example.
◆ *Purpose of the study.* Include a statement indicating, succinctly, the intent or purpose of the study. This statement not only informs the participant about the nature of the study, but it also fulfills an important "informed consent" provision of identifying the purpose of the study for participants.

FIGURE 12.5

Cover Letter Components	
	July 10, 2004
	Dear Colleague,
Importance of participant	As a relative newcomer to the profession of student affairs, you undoubtedly have ways in which you enhance your practice. Graduate preparation programs, associations, and seasoned professionals must be aware of the strategies that are most useful to you and other professionals in order to help promote professional development, competency, and commitment to the field. Your response to this survey can greatly enhance our understanding.
Purpose of the study	I am conducting this research to explore how professionals new to the field of student affairs enhance their practice. I want to measure the extent to which new professionals use individual and collaborative (that is, in interaction with other professionals) strategies including reflection, and opportunities for development. I will also measure how new professionals view their own skills and knowledge. My population is new professionals in the west-central part of the United States and Canada.
Assurances	Your participation in this research is, of course, voluntary. Your confidentiality and anonymity are assured. Return of the survey to me is your consent for your responses to be compiled with others. Although the survey is coded to allow for follow-up with non-respondents, you will not be individually identified with your questionnaire or responses. Please understand that use of this data will be limited to this research, as authorized by the University of Nebraska at Lincoln, although the results may ultimately (and hopefully!) be presented in formats other than the dissertation, such as journal articles or conference presentations. You also have the right to express concerns to me at the number below, my major professor Dr. John Creswell at the UNL Department of Educational Psychology address shown above, or the UNL Institutional Review Board.
Sponsorship	
Completion time	I greatly appreciate your participation in this research. *The survey will take approximately 15–20 minutes to complete.* **Please return the survey within two weeks (by July 25)** in the enclosed, self-addressed, stamped envelope. This will save a follow-up mailing to you.
Returns	
	If you have been in the field for more than five years, please note as much on survey item #1 and return the entire instrument to me.
	Thank you for your interest and participation in this study. I genuinely appreciate your time.
	Sincerely,
Sponsorship	Kimberly VanHorn-Grassmeyer Associate Director, Student Assistance Center University of Kansas, Lawrence KS 66045 913.864.4064; kgrassmeyer@ukans.edu

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FIGURE 12.6

ENHANCING PRACTICE:
NEW PROFESSIONALS IN STUDENT AFFAIRS

I. DEMOGRAPHICS:

1. Years of employment
   in Student Affairs:
   ___ a. current Graduate Student
   ___ b. 0 up to 2 years
   ___ c. more than 2, up to 5 years
   ___ d. more than 5 years
   If d, do not complete remainder of survey.
   Return in envelope provided. Thank you.

2. Graduate program practical experiences *(check any of the following that apply to your experience):*
   ___ a. assistantship in student services (paid training experience)
   ___ b. practica in student services (unpaid training experience)
   ___ c. mentoring relationship with a mid- or senior-level administrator
   ___ d. peer group interactions such as case studies, problem-solving
   ___ e. peer group interactions more social in nature
   ___ f. other out-of-class experience: _____

3. National professional associations in which you are a member *(rank 1-3 in order of importance to you):*

   ___ a. AAHE   ___ d. AERA   ___ g. NASPA
   ___ b. ACPA   ___ e. ASHE   ___ h. NAWE / NAWDAC
   ___ c. ACUHO   ___ f. NACA   ___ i. Other: _____

4. Gender: ___ a. female   ___ b. male

II. PROFESSIONAL PRACTICE:

1. Indicate the amount of institutional funding you received in the past academic year for participation in professional development conferences and workshops off-site:
   ___ a. none   ___ c. $101 to $250   ___ e. $501 to $1000
   ___ b. less than $100   ___ d. $251 to $500   ___ f. more than $1000

2. Indicate the amount of personal funds you spent in the past academic year for participation in professional development conferences and workshops off-site:
   ___ a. none   ___ c. $101 to $250   ___ e. $501 to $1000
   ___ b. less than $100   ___ d. $251 to $500   ___ f. more than $1000

3. What professional development costs *(full or partial)* does your institution absorb for you?
   (check any of the following that apply):
   ___ a. association membership dues for more than one association
   ___ b. association membership dues for only one association
   ___ c. on-site seminars and workshops
   ___ d. staff retreats
   ___ e. subscriptions to professional journals and newsletters
   ___ f. release time for participation in programmed activities
   ___ g. release time for personal reflection and renewal
   ___ h. release time for courses related to my work
   ___ i. tuition assistance for courses related to my work

4. To what extent do you feel your graduate program prepared you for your work in student affairs?

   ACADEMICALLY: ___ a. not at all   EXPERIENTIALLY: ___ a. not at all
                        ___ b. a little bit   ___ b. a little bit
                        ___ c. fairly well   ___ c. fairly well
                        ___ d. very well   ___ d. very well

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FIGURE 12.6

Enhancing Practice Survey, p. 2

Using the following 1 - 5 scale, please indicate, by circling the most correct response, the degree to which you agree with the statements listed below:

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

1 2 3 4 5   5. I have a strong personal commitment to my professional growth and development.

6. Regarding my professional practice, I value the opinions of my:
1 2 3 4 5   a. colleagues
1 2 3 4 5   b. mentor(s)
1 2 3 4 5   c. graduate program peers

1 2 3 4 5   7. When I reflect on my practice, I know more than I'm really able to describe.

1 2 3 4 5   8. I believe my instincts compare favorably with colleagues I respect.

1 2 3 4 5   9. I have a responsibility to contribute to the development of other student affairs professionals.

1 2 3 4 5   10. My institution expects continued professional development of its staff.

1 2 3 4 5   11. I know that I need to consciously enhance my professional practice.

1 2 3 4 5   12. I like to talk with other professionals about my decision-making and professional practice.

1 2 3 4 5   13. I know most of what I will need to guide my practice.

1 2 3 4 5   14. I feel a sense of connection to the field of Student Affairs.

1 2 3 4 5   15. I have a professional responsibility to continue to learn and develop in my daily work.

1 2 3 4 5   16. I benefit from collaborative reflection with colleagues.

1 2 3 4 5   17. I believe my institution should ensure that I grow as a professional.

1 2 3 4 5   18. I consider myself to be a strong student affairs administrator.

1 2 3 4 5   19. I expect to continue working in student affairs for at least ten years.

20. I receive encouragement for continuing professional growth and development from:
1 2 3 4 5   a. institutional colleagues
1 2 3 4 5   b. my senior student affairs offficer

1 2 3 4 5   21. I still have a lot to learn from experience and practice.

22. I continue to learn a great deal from my:
1 2 3 4 5   a. colleagues
1 2 3 4 5   b. mentor(s)
1 2 3 4 5   c. graduate program peers

1 2 3 4 5   23. I have a sense of self-efficacy and confidence in my work.

FIGURE 12.6

Enhancing Practice Survey, p. 3

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

24. I maintain a strong network of or connection to:
1 2 3 4 5   a. professional colleagues
1 2 3 4 5   b. mentor(s)
1 2 3 4 5   c. graduate program peers

1 2 3 4 5   25. I believe my professional development is my responsibility.

1 2 3 4 5   26. I prefer close supervision over my activities at this point in my career.

1 2 3 4 5   27. I have learned about as much as I can of student development theory.

1 2 3 4 5   28. I am able to function autonomously in my professional role.

1 2 3 4 5   29. I have a professional responsibility to promote/advance the student affairs field.

Using the following 1 - 5 scale, please indicate by circling the most correct response, how regularly you practice the activities listed below:

1	2	3	4	5
never	rarely	sometimes	regularly	often

1 2 3 4 5   30. At least one of my institutional job performance measures (e.g., annual review, annual goals) includes an expectation for professional growth and development.

1 2 3 4 5   31. I read professional journals and periodicals to keep current in the field.

1 2 3 4 5   32. I make time for collaborative (with other professionals) reflection.

1 2 3 4 5   33. I claim responsibility when I've made a "bad call" professionally.

1 2 3 4 5   34. I consciously think back to and apply theory as I go about decision-making and professional practice.

1 2 3 4 5   35. I attend conferences even when I'm expected to personally absorb the majority of the cost of attendance.

36. I utilize the expertise of others (listed in a-b-c) to enhance my professional practice:
1 2 3 4 5   a. colleagues
1 2 3 4 5   b. mentor(s)
1 2 3 4 5   c. graduate program peers

1 2 3 4 5   37. After taking action or employing a strategy, I reflect to determine whether it was appropriate, and how I might respond differently next time.

1 2 3 4 5   38. I second-guess my actions in professional situations.

1 2 3 4 5   39. I seek out opportunities to share my professional knowledge and learning with other professionals. Indicate how you have done so:
____ a. write for publication in professional journals, newsletters, etc.
____ b. present sessions at retreats, workshops and/or conferences
____ c. collaborate with others who seek advice and assistance
____ d. other methods: _____

FIGURE 12.6

Enhancing Practice Survey, p. 4

1	2	3	4	5
never	rarely	sometimes	regularly	often

1 2 3 4 5 40. I serve on institution-wide committees, task forces, ad hoc groups, etc.

1 2 3 4 5 41. I seek out opportunities to enhance my professional knowledge and practice.

1 2 3 4 5 42. I attend professional association conferences (regional/state or national).
For this question only: 1=never, 2=rarely, 3=some years, 4=every year, 5=more than one each year

1 2 3 4 5 43. I feel confident when making particularly difficult professional decisions.

1 2 3 4 5 44. I record my thoughts about professional practice in a journal/diary.

1 2 3 4 5 45. I consciously think back to and apply personal experiences as I go about decision-making and professional practice.

1 2 3 4 5 46. I make time for individual professional reflection.

III. SHORT ANSWER QUESTIONS:
Please respond briefly to the following questions, *using an additional sheet if necessary:*
47. Think back on one of the most difficult professional decisions you've made in your current position, one that involved a situation with others (colleagues, students, supervisees). Please describe how you reached that decision, what factors you considered, who, if anyone, you consulted with beforehand, and whether & how you processed it afterward.

48. In your opinion, what defines a competent student affairs professional? Would you describe yourself in those terms? Why or why not?

THANK YOU FOR YOUR PARTICIPATION AND CANDID RESPONSES.
Please return your survey in the enclosed stamped envelope before July 25.

◆ *Assurances of confidentiality.*   Also, to comply with informed consent and to be ethical, the investigator assures the individual of confidentiality (i.e., not identifying individuals specifically).

◆ *Sponsorship.*   The cover letter includes the advisor's name as well as the institution where VanHorn-Grassmeyer works. In addition, write the letter on letterhead stationery to add additional sponsorship.

◆ *Completion time and returns.*   Add to the letter an estimate of the amount of time the survey will take to be completed and the procedure for returning the instrument to the author.

Overall Questionnaire Construction

Examine Figure 12.6 to see a complete mailed questionnaire. This instrument contains features of good questionnaire construction. It is short and encourages a busy professional to return it. The instrument begins with demographic or personal questions that respondents can easily answer, and in the process of answering them, they become committed to completing the form. For variety, the author used different types of closed-ended questions, from checking the appropriate response (e.g., "years of employment") to an extent of agreement scale ("strongly disagree" to "strongly agree"), to a frequency scale ("never" to "often"). The questionnaire also contains open-ended items to encourage participants to elaborate on their experiences and definitions (e.g., "What defines a competent student affairs professional?"). It also contains a pleasing layout with much "white space" between the questions and the use of one scale (e.g., "strongly disagree" to "strongly agree") for multiple questions so that participants do not repeat responses. It also includes closing instructions thanking the respondent for participating in the study.

Data Analysis of a Research Questionnaire

When researchers compare groups or relate variables, their statistical analysis of questionnaire data extends beyond simple descriptive analysis. Examine the steps identified in Figure 12.7.

These steps describe the process typically used for analyzing mailed questionnaire data. The figure includes reporting response rate and checking for bias in responses. The researcher also descriptively reports aggregate responses to each item on the questionnaire. This process helps to discern general patterns of responses and variation (variance and standard deviation) in results. Typically, researchers using mailed questionnaires also correlate all of the questions and attempt to build scales that reflect multiple questions. As with all instruments, scores need to be reliable and valid, and statistical procedures such as internal consistency checks (e.g., the alpha reliability statistic) and validity (e.g., factor analysis) represent means for making these assessments. Finally, the researcher tests hypotheses or research questions using inferential statistics.

HOW DO YOU DESIGN AND CONDUCT AN INTERVIEW SURVEY?

Instead of a mailed survey, researchers might collect quantitative data using an interview survey instrument. In using this form of data collection, we need to know the stance of the interviewer, recognize the importance of training interviewers (if there is more than

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FIGURE 12.7

_____ Step 1. Identify response rate and response bias.
_____ Develop table for percent of responses to the survey.
_____ Develop table for the wave analysis response bias.
_____ Step 2. Descriptively analyze the data to identify general trends.
_____ Calculate and present a table of descriptive statistics (mean, variance, and range) for each question on the instrument.
_____ Analyze data to develop a demographic profile of the sample (analyze questions about personal factors).
_____ Analyze data to provide answers to descriptive questions in the study (if any).
_____ Step 3. Write the report presenting the descriptive results or use advanced statistics.
_____ Develop scales by combining questions on the instrument (i.e., correlate items using the statistical procedure of factor analysis).
_____ Check for the reliability of the scores on the scales (i.e., use a coefficient of internal consistency).
_____ Check for the validity of the scores on scales (or factors) (i.e., use factor analysis).
_____ Analyze data using inferential statistics to address research questions or hypotheses (i.e., comparing groups, relating variables).

---

one), and know the general steps in administering this form of data collection. To understand this process, we will use a telephone interview as an example.

Stance of the Interviewer

Researchers often use interview surveys less frequently than mailed questionnaires in educational research. Interview procedures often involve the need for the researcher to establish rapport with and gain the cooperation of the interviewee. Rapport builds through requests for an interview in the cover letter. During an interview, the researcher should remain neutral and should not share opinions (e.g., "I think that budget cutting is a good idea, too"). It is also important to use a positive tone of questioning and to have a neutral appearance.

Training of Interviewers

If more than one interviewer is involved in a research project, each person needs training. This training might consist of a role-playing demonstration by an experienced researcher and a practice interview by the individual researchers who will be conducting the interviews. It is important during this training for interviewers to become familiar with the questions so that they will know if the responses match the questions. Training

also covers potential interruptions during interviews or questions interviewees might have about the interview. Problems can arise during an interview, such as when the interviewer:

◆ Does not ask the questions in order (e.g., Question 3 is asked before Question 2)
◆ Intentionally subverts the process because of disinterest in the topic (e.g., the interviewer does not take time to probe on questions)
◆ Brings certain expectations to the interview about how the individuals will answer (e.g., the interviewer prefaces the question with "I think you already know the answer to this . . .")
◆ Dresses or appears inappropriately for the interview (e.g., wears shorts when the interviewee is dressed in a suit)
◆ Is disrespectful by not using names the interviewee wants to be called (e.g., referring to the individual as "Latino" instead of "Hispanic")

Steps in Interviewing

The steps in conducting an interview involve obtaining an interview survey to use and training individual interviewers (if more than one person will be conducting the interviews). Then the researcher gains access to the participants through a formal invitation, such as a cover letter, and establishes a time and place to conduct the interview. During the interview, the survey researcher asks questions, indicates the response options to questions, and records participant answers. The pace of the interview is set to be comfortable for the interviewee. When asking open-ended questions, the interviewer writes down answers to the questions (or tape-records them). The interview ends with the researcher thanking the individual for the interview and telling the participant what the next step will be in the study. After the interview, the researcher may want to write down comments that help explain the data, such as the demeanor of the interviewee or specifics about the situation (e.g., "It was so noisy I could hardly hear at times"). The interviewer might also record any personal feelings about the interview (e.g., "I felt uneasy during this interview and perhaps did not probe as much as I could have").

A Telephone Interview Guide

An example of a telephone interview guide is shown in Figure 12.8. This interview guide was for an interview with 200 academic department chairpersons surveyed to understand how chairpersons assisted faculty in their units (Creswell et al., 1990). Consisting of 25 questions, each interview lasted, on average, about 45 minutes, and all interviews were audiotaped. Six interviewers assisted in the process of data collection, and their training consisted of a demonstration and a practice interview. The researchers constructed this guide to include:

◆ Introductory remarks to help establish rapport and direction for the interview (e.g., the amount of time required)
◆ Clearly marked boxes with instructions for each question in the interview so that each interviewer on the research team would ask the same question
◆ Closed-ended response options for each question, with space between questions permitting the interviewer to write in additional comments
◆ Numbers in parentheses to indicate the column number for coding the response into a data grid of a computer file for statistical analysis

FIGURE 12.8

Structured Interview Schedule A

Interviewer's Code Sheet

Pre-Interview Information

Interviewer's ID _____	(1–2)
Institutional Code No. _____	(3–5)
Date of Interview _____	(6–10)
Discipline Code (Carnegie) for Interviewee _____	(11–12)
Gender of Interviewee (1) Female _____ (2) Male _____	(13)

[Note to interviewer: Mark # on your tape counter for potentially interesting quotes.]

Interview Information

Interviewer's Introduction

> We appreciate your willingness to be interviewed today. As we indicated earlier, the purpose of our project is to interview department chairs (or their institutional equivalent) who are considered exceptional in assisting faculty on college and university campuses and to identify specific ways in which they enhance the professional growth and development of faculty in their units. This project is being sponsored by the Lilly Endowment and TIAA-CREF, and the information will be used in the preparation of a practical handbook.
>
> The interview should last from 30 to 40 minutes. In our earlier communication with you, we described the nature of our interview questions. Should we go over the question areas at this time? (Pause for response.)

4. How were you selected?	(25)

    (1) National search _____
    (2) Administrative appointment _____
    (3) Elected by faculty _____
    (4) Other _____

5. Please tell me some information about your appointment.

Do you have a specific length of appointment in calendar years? (Probe: reappointed?)

    (1) Yes, # of years _____
    (2) No _____
    (3) Uncertain _____   (26–27)

If yes, is this length typical on your campus?

    (1) Yes _____
    (2) No _____
    (3) Uncertain _____   (28)

Do you serve at the pleasure of faculty in your unit or administrators?

    (1) Faculty _____
    (2) Administrators _____
    (3) Some combination _____   (29)

6. How long do you expect to stay in your current position?

    [Interviewer: Cite reasons where possible.]

    (1) Don't know _____
    (2) Certain number of years _____
    (3) Up to my dean _____
    (4) As long as I want _____
    (5) Up to the faculty _____

WHAT ARE POTENTIAL ETHICAL ISSUES IN SURVEY RESEARCH?

Ethical issues arise in survey research at distinct points in the research process, such as in collecting data, in analyzing results, and in reporting results. Fowler (2009) provides detailed attention to these phases in the survey process and the ethical issues they present. At the outset, it is noted that survey research is often exempt from a detailed review by institutional review boards unless it addresses sensitive topics or involves research with sensitive or minor populations. Survey researchers can use incentives to encourage individuals to participate in a study, but these incentives should not be so large that they become unethical for individual participation. Clearly, good ethical practices dictate that survey researchers do not overstate the benefits of participating and deliver on what benefits are guaranteed.

Ethical responsibility attaches to survey researchers who engage interviewers to go out in the field and gather information. Researchers should not put interviewers at risk for their safety, or put the interviewer in a position of being deceptive, misleading, or inaccurate. Sensible procedures should be used by such interviewers to keep them safe.

The respondent participants need to be kept safe as well. What the researcher learns from the survey respondent should not be shared outside of the research team. Confidentiality of responses should be protected, such as minimizing links between answers and specific participant identifiers. Links between the answers and participants should be made with an ID number that is only known by the researcher or the research team. In analyzing the data, survey researchers should be careful about reporting a small subset of results that will disclose the identity of specific individuals. Also, when the project concludes, the researcher is responsible for the destruction of the survey instruments, keeping in mind that questionnaires and records can be subpoenaed by courts (unless petitions of confidentiality are filed with the courts).

In Box 12.1, we see an ethical dilemma arise in survey research in a large city.

BOX 12.1 Ethical Dilemma

Unsafe Survey Procedures?

A research team hired by the city sought check the authenticity of the homeless count in one large metropolitan city. The intent of the project was to make sure that the city had appropriate resources for the homeless. This research team hired a number of survey researchers. Their task was to be "decoys" and dress up like homeless individuals, go to a designated "project" apartment complex and spend the night standing right near the entrance of a building. When census takers came by, they were to note whether they were being counted. The research team sent these survey researchers out in teams of two. Do you feel that this was a potentially unsafe role for the survey researchers? Was this deceptive survey research practices? What safety precautions would you have taken if you were in charge of this research project?

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WHAT ARE THE STEPS IN CONDUCTING SURVEY RESEARCH?

The steps in the process of conducting survey research follow the general process of research. Survey steps, however, address primarily the procedures for collecting data, analyzing data, and writing the final report.

Step 1. Decide if a Survey Is the Best Design to Use

You need to decide whether survey research is the best design to use in the study. Surveys help describe the trends in a population or describe the relationship among variables or compare groups. Instances where surveys are most suitable are to assess trends or characteristics of a population; learn about individual attitudes, opinions, beliefs, and practices; evaluate the success or effectiveness of a program; or identify the needs of a community.

There are several advantages to using surveys. You can administer them in a short time, they are economical as a means of data collection, and they can reach a geographically dispersed population. Further, you can canvass the participants anonymously, without biasing their responses. However, survey data is self-reported information, reporting only what people think rather than what they do. Sometimes the response rates are low and researchers cannot make claims about the representativeness of the results to the population. As mentioned earlier, surveys do not control for many variables that might explain the relationship between the independent and dependent variables, and they do not provide participants flexibility in responding to questions (unless open-ended questions are included).

Step 2. Identify the Research Questions or Hypotheses

You can address both research questions and hypotheses in a survey design. Surveys lend themselves to hypothesis testing because you will be studying a sample to draw inferences to a population. Forms of research questions or hypotheses are those that:

◆ Describe the characteristics or trends of a population of people, such as the frequency of tobacco use among male high school students
◆ Compare groups in terms of specific attributes, such as a comparison of teachers and administrators about attitudes toward "in-service" learning days
◆ Relate two or more variables, such as a survey of teachers to relate "burnout" to number of years of teaching

Step 3. Identify the Population, the Sampling Frame, and the Sample

The process of survey research begins with identifying the population. This step requires defining the population, determining the number of people in it, and assessing whether you can obtain a list of names (i.e., the sampling frame) for the sample. Also, the population may need to be stratified before sampling, so select characteristics of the population (e.g., males and females) are represented in the sample.

Once you have identified the target population and compiled a list of its members, you can select the sample, preferably using random sampling procedures. You will need to identify an adequate sample size, using a sampling error formula.

Step 4. Determine the Survey Design and Data Collection Procedures

The researcher must also determine if the survey study will be cross-sectional or longitudinal. The decision to use a longitudinal or cross-sectional design relates to the nature of the problem studied, access to participants, and the time available to the researchers for data collection. For example, learning about the longitudinal development of adolescent social skills in schools requires following adolescents over time and devoting extensive time to data collection. In contrast, examining parents' attitudes toward discipline in schools requires a cross-sectional study at one point in time to assess attitudes immediately and quickly.

Consider also whether data collection will be based on questionnaires (mailed or electronic) or interviews (individual, focus group, or telephone), and weigh the advantages and disadvantages of each form.

Step 5. Develop or Locate an Instrument

You need an instrument to collect or measure the variables in a study. It is easier to locate an instrument than to develop one. Standards of reliability and construct validity need to be applied to scores from existing instruments before you select them for use. If a study addresses only a few variables, researchers can design their own instruments. A check for the reliability and validity of scores from this instrument during data analysis is most important.

Step 6. Administer the Instrument

This step is perhaps the most time-consuming phase of survey research. It involves seeking and obtaining permission to conduct the survey and using procedures for data gathering, such as training interviewers or preparing questionnaires for mailing. It requires continually following up to obtain a high response rate, checking for response bias if questionnaires are used, and preparing the data for analysis by coding the information from the instruments into a computer file.

Step 7. Analyze the Data to Address the Research Questions or Hypotheses

The data analysis procedures will reflect the types of research questions or hypotheses the researcher plans to address in the study. Analysis consists of noting response rates, checking for response bias, conducting descriptive analysis of all items, and then answering descriptive questions. It might also involve testing hypotheses or research questions using inferential statistics.

Step 8. Write the Report

You should write the survey study using a standard quantitative structure that consists of an introduction, the review of the literature, the methods, the results, and the discussion. Specify in the "Methods" section of the study detailed information about the survey procedures. Include in the "Discussion" section comments about the generalizability of the results to the population.

HOW DO YOU EVALUATE SURVEY RESEARCH?

Whether the research consists of interviews or mailed questionnaires, survey studies need to meet high standards of quality. If you plan to conduct a survey, you need to design and write a "Methods" section in your study that conveys the detailed survey research procedures.

For educators who read and seek to use results from surveys, a checklist of elements to include in a survey design can provide basic information to look for in a published study. The following checklist of quality criteria is based on the key concepts introduced in this chapter and adapted from Fowler (2009) and Neuman (2000). The researcher:

◆ Describes and specifies the target population and the sample.
◆ Identifies how the sample was derived (e.g., random sampling, nonrandom sampling).
◆ Discusses the size of the sample and the means for deriving the sample size.
◆ Uses a type of survey (i.e., longitudinal or cross sectional) that matches the research questions or hypotheses.
◆ Clearly identifies the instruments used in data collection and how they were selected.
◆ Reports information on the reliability and validity of scores from past uses of the questionnaire or interview.
◆ Discusses the procedures for administering the instruments.
◆ Mentions appropriate follow-up procedures to ensure a large return rate and lack of response bias.
◆ Provides an example of the questions on the questionnaire or interview.
◆ Uses data analysis procedures to answer the research questions or hypotheses.
◆ Writes the study in a scholarly way (i.e., follows a standard structure) and identifies potential ethical issues.

KEY IDEAS IN THE CHAPTER

Defining Survey Research, When to Use It, and How It Developed

Although broad in scope, survey research is a form of quantitative research in which the investigator identifies the sample and the population, collects data through question-naires or interviews, and draws conclusions or makes inferences about the population. It is a useful design to use when researchers seek to collect data quickly and economically, study attitudes and opinions, and survey geographically dispersed individuals.

Types of Survey Designs

Surveys are also useful for assessing information at one point in time (a cross-sectional study) or over time (a longitudinal study). Cross-sectional studies are of several types. They can:

◆ examine current attitudes, beliefs, opinions, or practices.
◆ compare two or more educational groups in terms of attitudes, beliefs, opinions, or practices.
◆ assess community needs for educational services.
◆ be used to evaluate programs.
◆ be used statewide or nationally to survey many participants across a large geo-graphic area.

Longitudinal surveys may assess changes over time with trends of a population, changes in a cohort group or subpopulation of a population, or changes in a panel of the same individuals over time.

Key Characteristics of Survey Research

Survey researchers emphasize sample selection of a sample from a population to which they can generalize results; collect data using questionnaires and interviews that vary in forms (e.g., mailed questionnaires, Web-based questionnaires, one-on-one interviews,

telephone interviews, and focus group interviews) and weigh the advantages and disadvantages of each; administer well-tested instruments with good questions and scales; and seek a high response rate from participants using procedures that will ensure a high return rate and will not be biased.

Constructing and Using a Mailed Questionnaire

The design of a mailed questionnaire involves several components. It consists of a cover letter to invite participants to complete the questions, and the construction of an instrument that is of appropriate length and that contains an opening beginning with demographic questions, a series of closed-ended questions, and closing statements. The data analysis consists of checking for response rate and bias, descriptive statistics, and inferential statistics to analyze the research hypotheses or questions.

Designing and Conducting an Interview Survey

When interview surveys are used, researchers need to establish rapport and gain the confidence of the interviewee. This often requires training for the interviewee, attending to issues in the process of interviewing, and using an interview guide.

Potential Ethical Issues in Survey Research

Ethical issues in survey research involve engaging in good practices. Often survey research is exempt by institutional review boards. During data collection, attention needs to be given to using appropriate incentives and delivering on benefits guaranteed. The survey data collection procedure cannot put data collectors at risk for their safety. Safety applies to the respondents or participants as well. Confidentiality of their responses needs to be protected, along with minimizing links between data respondents and participants. IDs linked to responses can be an effective means of protecting individual identity. Also, the researcher has an obligation to destroy survey instruments after the conclusion of the study.

Steps in Conducting Survey Research

The steps in conducting a survey consist of determining if a survey design is the best design to use, forming questions or hypotheses, and identifying a population and a sample to study. Then the researcher selects the type of survey to reach this sample or population, collects data to ensure a good rate of response and minimal response bias, and statistically analyzes the data to answer descriptive questions or to address relationship or comparison questions or hypotheses.

Criteria for Evaluating Survey Research

A good survey study includes the identification of the population and the sample, contains an adequate-sized sample systematically derived, employs a cross-sectional or longitudinal design, specifies the instruments (and includes sample questions), determines whether scores from them will likely be reliable and valid, uses appropriate data analysis procedures to answer the questions or hypotheses, and is written acknowledging ethical issues and using a standard structure.

USEFUL INFORMATION FOR PRODUCERS OF RESEARCH

◆ Identify whether your study is cross-sectional or longitudinal. Longitudinal surveys take more time to complete because you are studying individuals over time.
◆ In your research, distinguish between the population, the target population, and your sample. Choose a random sample so that you can generalize to your population. Consider the sources of error that may affect your ability to generalize findings or results to the population.
◆ Specify the type of data collection instrument that you use, such as questionnaires or interviews.
◆ Conduct a pilot test of your questions, whatever your type of data collection instrument, so that it can provide useful information.
◆ Be aware of how you pose sensitive questions to participants. Realize that they may need some introductory comments before you ask participants to respond to sensitive questions.
◆ A number of potential problems arise when you create your own questions. Study Table 12.1 for a list of problems you should avoid when writing your own questions.
◆ A typical high response rate is above 50%, but check for response bias through wave analysis when you use a mailed questionnaire.
◆ Design a mailed questionnaire to include a cover letter, a clear layout of questions, and instructions to the participant. You should keep your instrument as short as possible.
◆ If you conduct an interview, adopt a neutral stance and record responses accurately.

USEFUL INFORMATION FOR CONSUMERS OF RESEARCH

◆ Surveys are used for many purposes in research. When evaluating a study, consider the intent of the author to describe trends, determine attitudes or opinions, describe characteristics of a population, identify practices, evaluate programs, or follow up on individuals over time.
◆ Mailed questionnaires are a popular form of data collection in educational research. However, these instruments need to be carefully designed. Determine whether the researcher used attitudinal, behavioral, or demographic questions in the instrument.
◆ A questionnaire response rate of 50% is considered adequate for most surveys. Examine the response rate of a survey study published in the literature and determine if it reaches this percentage. Also consider whether survey researchers addressed the question of response bias and checked to determine if their responses were biased.

ADDITIONAL RESOURCES YOU MIGHT EXAMINE

Several books provide an excellent introduction to survey research. An introduction to survey research is found in the "toolkit" series on survey research by Arlene Fink (2002).

This nine-volume series by Fink and associates comprehensively addresses all aspects of survey development, from asking questions to writing reports. See:

Fink, A. (2002). *The survey handbook* (2nd ed.). Thousand Oaks, CA: Sage.

Examine the recent survey research book by Dillman (2007) on the use of mail and Internet surveys:

Dillman, D. A. (2007). *Mail and Internet surveys: The tailored design method* (2nd ed.). Hoboken, NJ: Wiley.

Floyd Fowler (2009) has issued a short book on survey research that is popular in introductory survey research courses. He focuses on sampling and design issues, as well as highlighting ethical issues and errors in survey designs. See:

Fowler, F. J. (2009). *Survey research methods* (4th ed.). Los Angeles, CA: Sage.

In a more advanced treatment of survey research, Earl Babbie has authored several books that provide a detailed, technical understanding (Babbie, 1990, 2009). His books broadly assess social research, but they are applicable to education. See:

Babbie, E. (1990). *Survey research methods*. Belmont, CA: Wadsworth.
Babbie, E. (2009). *The practice of social research* (12th ed.). Belmont, CA: Wadsworth.

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♦ Find learning outcomes for "Survey Research."
♦ Complete Assignments and Activities that can help you more deeply understand the chapter content.
♦ Apply and practice your understanding of the core skills identified in the chapter with the Building Research Skills exercises.
♦ Check your comprehension of the content covered in the chapter by going to the Study Plan. Here you will be able to take a pretest, receive feedback on your answers, and then access Review, Practice, and Enrichment activities to enhance your understanding. You can then complete a final posttest.

Example of a Survey Study

Examine the following published journal article that is a survey study. Marginal notes indicate the major characteristics of survey research highlighted in this chapter. The illustrative study is:

Literacy as a Leisure Activity: Free-Time Preferences of Older Children and Young Adolescents

Survey Research
Characteristics
in Marginal
Annotations

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Jill K. Duthie
Jennifer Larsen
University of Oregon, Eugene

Abstract

Purpose

Literacy plays an important role in the development of language in school-age children and adolescents. For example, by reading a variety of books, magazines, and newspapers, students gain exposure to complex vocabulary, and reading becomes a prime opportunity for learning new words. Despite the importance of reading for lexical development, little is known about the pleasure reading habits of today's youth. The first goal of this investigation was to examine the preferences of older children and young adolescents with respect to reading as a leisure-time activity and its relationship to other free-time options that are likely to compete for their attention. The second goal was to examine the amount of time that young people spend reading for pleasure each day and the types of materials they most enjoy reading. The third goal was to determine if preferences for free-time activities and reading materials would evince age- and gender-related differences during the period of development from late childhood through early adolescence (ages 11–15 years). The findings could serve as a reference point for understanding what is reasonable to expect of students during this age range.

Method

The participants were 100 sixth graders (mean age = 11;7 [Years;months]) and 100 ninth graders (mean age = 14;8) attending public schools in western Oregon. Each group contained an equal number of boys and girls, all of whom spoke English as their primary language and were considered to be typical achievers. All participants completed a survey concerning their preferred free-time activities and reading materials. They also reported the average amount of time they spent reading for pleasure each day.

Results

The most popular free-time activities were listening to music/going to concerts, watching television or videos, playing sports, and playing computer or video games. Least preferred activities were cooking, running or walking, writing, and arts and crafts. Reading was moderately popular. The most popular reading materials were magazines, novels, and comics; least popular were plays, technical books, and newspapers. Interest in pleasure reading declined during this age range (11–15 years), and boys were more likely than girls to report that they spent no time reading for pleasure.

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Clinical Implications

Given the importance of reading to lexical development in school-age children and adolescents, reading should be promoted as a leisure activity during these years. School-based speech-language pathologists (SLPs), in their role as language consultants, can benefits from understanding the pleasure-reading patterns of today's youth. It is especially important for SLPs to monitor these patterns in students who have language disorders, as it is common for these young people to experience deficits in reading and in lexical development. Fortunately, much can be done in school settings to encourage strong literacy habits in all students if SLPs work collaboratively with teachers, principals, psychologists, librarians, parents, and students. Suggestions are offered for ways to encourage young people to spend more time reading for pleasure.

Key Words: lexical development, literacy, pleasure reading, school-age children, adolescents

(01)   Literacy plays an important role in the development of language during the school-age and adolescent years. Typically developing youth acquire new vocabulary at an impressive rate of 2,000 to 3,000 words per year (Nagy & Scott, 2000; White, Power, & White, 1989), resulting in a working knowledge of at least 40,000 different words by the senior year of high school (Nagy & Herman, 1987). One factor promoting this enormous growth in lexical development is the increased exposure to written language that occurs as children become proficient readers (Miller & Gildea, 1987). Compared to spoken language (e.g., conversations, television shows), written language (e.g., newspapers, novels) contains a greater variety of complex and low-frequency words, and becomes a prime opportunity for learning the meanings of words, particularly after the fifth grade (Cunningham & Stanovich, 1998; Stanovich & Cunningham, 1992). By this time, decoding and fluency skills have improved in most students to the point where reading has become a tool for gaining new knowledge, which includes the learning of words that occur in textbooks for older children and adolescents (Chall, 1983). Increased word knowledge leads to stronger reading comprehension, which, in turn, leads to further lexical expansion (Sternberg & Powell, 1983). Thus, there is an ongoing reciprocal relationship between language and literacy development in youth.

(02)   Learning the meanings of unfamiliar words is a gradual process (Beck & McKeown, 1991) that requires an understanding of subtle nuances and the ability to use those words in different contexts (Nagy & Scott, 2000). A single exposure to an unfamiliar word is unlikely to result in this degree of knowledge, and studies have shown that many new words are learned as a result of having repeated exposure to them while reading (Jenkins, Stein, & Wysocki, 1984; Nagy, Herman, & Anderson, 1985; Schwanenflugel, Stahl, & McFalls, 1997). The mechanisms by which this occurs have been studied in detail. Research has shown that upon exposure to an unfamiliar word, the learner begins to determine its meaning through the use of key metalinguistic strategies—morphological analysis (Anglin, 1993; Nagy, Diakidoy, & Anderson, 1993; White et al., 1989; Wysocki & Jenkins, 1987) and contextual abstraction (Miller & Gildea, 1987; Sternberg, 1987; Sternberg & Powell, 1983). Either or both of these strategies may be used depending on the analyzability of the target word and the quality of context clues surrounding it (Nippold, 2002). For example, consider a child who encounters the word *mineralogy* in a newspaper article about volcanoes. Knowledge of the lexical morpheme *mineral* and the derivational morphemeology can help the learner determine that the word refers to the science of chemicals found in the ground, a conjecture supported by sentences contained in the article, such as, "And when they [the scientists] thought to compare the *mineralogy* of their samples with known Missoula sediments, they were surprised to find that no one had ever examined the clay in detail. . . . Their idea was confirmed when they compared the minerals of the clay and material known to have been ejected by Mount Mazama" (Bolt, p. A9). These strategies offer a viable alternative to less efficient methods of word learning such as the use of a dictionary (Nippold, 1998).

(03)   Nagy and Herman (1987) estimated that children encounter 15,000 to 30,000 unfamiliar words a year from reading only 25 min per day, and argued that up to one half of student vocabulary growth may result from reading. Additionally, Miller and Gildea (1987) reported that students who are avid readers acquire larger vocabularies than those who read less frequently. Indeed, studies have found a consistent link between the amount of time spent reading and word knowledge in both children and adults.

Cunningham and Stanovich (1991) conducted a study to determine if there was a relation-   (04)
ship between print exposure, vocabulary, and other skills in fourth- through sixth-grade children
(N = 134). Print exposure was measured by a title recognition task (TRT) consisting of a checklist
of children's book titles and a series of foils. Additional measures were obtained for vocabulary,
verbal fluency, nonverbal problem-solving ability, and general knowledge. Oral vocabulary was
measured by a group-administered selection from the Peabody Picture Vocabulary Test—Revised
(PPVT-R; Dunn & Dunn, 1981); reading vocabulary was measured by a checklist composed of real
words and nonword foils; and verbal fluency was measured by a task in which the children wrote
down as many words as they could from four different categories, each in 45 s. Using hierarchi-
cal regression analyses to control for age and nonverbal ability, the investigators found that print
exposure as measured by the TRT uniquely predicted oral vocabulary, reading vocabulary, verbal
fluency, and general knowledge.

Similarly, Stanovich and Cunningham (1992) conducted a study to determine if differences in   (05)
print exposure were associated with word knowledge in young adults who were college students
(N = 300). Participants were administered formal tests of reading vocabulary, oral vocabulary, ver-
bal fluency, reading comprehension, and cognitive ability (nonverbal analogical reasoning). They
also were asked to fill out questionnaires that assessed their exposure to print, including their
familiarity with authors (Author Recognition Test) and magazines (Magazine Recognition Test).
Controlling for reading comprehension and cognitive ability in the participants, hierarchical regres-
sion analyses revealed that the level of print exposure uniquely predicted each measure of word
knowledge: reading vocabulary, oral vocabulary, and verbal fluency.

West, Stanovich, and Mitchell (1993) also demonstrated a strong relationship between print   (06)
exposure and word knowledge. Adult participants (N = 217) were selected from an airport lounge
on the basis of their observed reading behavior, and were classified as either "readers" or "non-
readers" according to how they spent their waiting time. Each participant was then administered a
vocabulary checklist and a series of tasks to measure print exposure (i.e., recognition of authors,
magazines, and newspapers) and nonprint exposure (i.e., recognition of television shows, films,
and actors). Readers received higher scores on print exposure than nonreaders, but the groups did
not differ on nonprint exposure. It was also determined that higher scores on print exposure were
significantly related to vocabulary scores, whereas higher scores on nonprint exposure were not.
Hierarchical regression analyses indicated that all three measures of print exposure—recognition of
authors, magazines, and newspapers—accounted for unique variance in vocabulary while control-
ling for participant age and amount of education.

This is not to argue that reading is the only source of word learning. Clearly, people can   (07)
learn new words from other sources such as listening to lectures and news reports, talking with
informed individuals, and watching educational television shows (Rice, 1983). Nevertheless, read-
ing is a prime source of word exposure, particularly for complex and low-frequency words, and
there is evidence from research that the amount of time spent reading is closely associated with
word learning—a relationship that holds during childhood and adulthood (e.g., Cunningham &
Stanovich, 1991; Stanovich & Cunningham, 1992; West et al., 1993). This suggests that reading
should be promoted, not only as a school-based activity, but as a leisure-time activity as well.

Beyond exposure to new words, reading for pleasure offers additional benefits. Summarizing   (08)
past research, Worthy, Moorman, and Turner (1999) reported that when children and adolescents
engage in voluntary reading about topics that truly interest them, their effort, motivation, and atti-
tudes about reading improve. They also reported that allowing students to read simpler materials
such as comics and magazines can improve their basic reading skills (e.g., fluency), leading to
increased confidence. This, they suggested, could encourage students to tackle more technical
reading materials in school.

Although most speech-language pathologists (SLPs) probably would agree that reading is an   (09)
important activity that should be promoted in young people, little is known about today's youth
and their views concerning the value of reading for pleasure in relation to the multitude of options
that exist for spending one's leisure time. Hence, the first goal of the present study was to investi-
gate the preferences of older children and young adolescents with respect to reading as a leisure-
time activity and its relationship to other free-time options that are likely to compete for their
attention. The second goal was to examine the amount of time that young people spend reading

for pleasure each day and the types of materials they most enjoy reading. The third goal was to determine if preferences for free-time activities and reading materials would evince age- and gender-related differences during the period of development from late childhood through early adolescence (ages 11–15 years). The findings could serve as a reference point for understanding what is reasonable to expect of students during this age range.

(10)   This developmental period was of interest because students are beyond the fifth grade, a time when reading has become a primary tool for learning the meanings of new words (Stanovich & Cunningham, 1992). This is also a time when socializing with peers takes on greater importance. In a cross-sectional study, Raffaelli and Duckett (1989) examined the socialization patterns of boys and girls ($N = 401$) during the ages of 10 to 15. They found that, as age increased, students spent greater amounts of time socializing with friends (e.g., talking on the phone and talking in person), a pattern that characterized girls more so than boys. They also found that as age increased, peer interactions made greater contributions to students' personal well-being. At the same time, however, parents remained an important source of information and advice, a finding confirmed by other investigators (e.g., Rawlins, 1992). Given these findings, it is important to examine the literacy habits of children and adolescents during this age range when socialization might be expected to displace solitary activities such as reading, and when differences in the behavior patterns of boys and girls sometimes emerge.

(11)   In public schools today, SLPs frequently work with school-age children and adolescents having language disorders. In an effort to conduct intervention that is relevant and ecologically valid, SLPs increasingly serve as consultants to other school professionals who work with those same students (Whitmire, 2000), such as teachers, psychologists, and librarians. Many students with language disorders experience difficulties in learning to read (Bashir, Wiig, & Abrams, 1987; Catts, Fey, Zhang, & Tomblin, 2001; Catts & Kamhi, 1999; Nippold & Schwarz, 2002; Stothard, Snowling, Bishop, Chipchase, & Kaplan, 1998) and have long-standing deficits in lexical development (Kail, Hale, Leonard, & Nippold, 1984; Kail & Leonard, 1986; McGregor, Newman, Reilly, & Capone, 2002). Students with language disorders who do not enjoy reading are likely to receive less exposure to new vocabulary through text—a situation that can exacerbate their limitations in word knowledge. Given the contribution that reading makes to lexical development, SLPs need to understand the literacy habits of today's youth in order to provide appropriate recommendations in their role as language consultants in public school settings.

Method

Participants

(12)   The participants were 100 sixth-grade children (50 boys, 50 girls) with a mean age of 11;7 (years;months; range = 11;1–12;1) and 100 ninth-grade adolescents (50 boys, 50 girls) with a mean age of 14;8 (range = 14;1–15;7). All participants were enrolled in a public middle school (sixth graders) or high school (ninth graders) located in a lower middle-income neighborhood in western Oregon. According to teacher report, the students represented a range of ability levels and were considered to be typical achievers. None had a known history of language, learning, or cognitive deficits, and none was receiving special education services. More than 90% of the participants were of European American descent, and all reported that English was their primary language spoken at home.

(13)   Teachers at each school were asked to volunteer their classes. This request resulted in the recruitment of five sixth-grade English classes and five ninth-grade English classes. A passive consent procedure was employed. The parents of all students enrolled in those 10 classes were provided with a letter informing them of the nature of the study and indicating that it was an optional activity to be carried out during regular school hours. If any parents objected to their son or daughter participating in the study, they were able to communicate that by returning a form letter to the school. No students were pressured to participate, and all were assured that it was a voluntary activity. Students were told that their individual performance would remain confidential. In addition, they were able to indicate their own willingness to participate by signing an assent form on the day of testing. Students who were not participating in the study were allowed to work quietly at their desks or go to the school library during the testing.

Sampling from a population

The Oregon Department of Education Web site (http://www.ode.state.or.us) reported that   (14)
13.8% of the students in this school district live in poverty, as compared to 14.3% for the state as
a whole. The Web site also reported the percentage of students who met or exceeded the state
benchmarks in reading, based on their performance on the Oregon Statewide Assessment (OSA).
In Oregon, this test is administered every year to all students in grades three, five, eight, and ten.
The participants in this investigation would have taken the test during their fifth- or eighth-grade
year. Although individual student scores were not available, it was reported that, for this district,
75% of the fifth graders met or exceeded the performance standards that year as compared to 79%
for the state, and 54% of the eighth graders met or exceeded the standards as compared to 64% for
the state. These results suggest that the participants in this investigation were fairly representative
of students in Oregon. However, the results also suggest that some of the participants, particularly
those in ninth grade, may not have met the performance standards in reading despite the fact that
none had been identified as having special needs.

Procedures

All participants were tested in large-group fashion in their classrooms at school by one of the   (15)
investigators. They were asked to complete a two-page survey, the "Student Questionnaire" (see   High response
Appendix), designed especially for the present study. To ensure that all participants were listening   rate
to the directions and performing the task, the examiner read each question aloud, paused, and
allowed time for them to mark their own answers.

The survey required approximately 10 min to complete and consisted of three main questions.   (16)
Question 1, which asked how students spent their free time, provided a list of activities that were   Collecting data
thought to be of interest to middle-school and high-school students. As a result of investigator   through a ques-
observations of young people and discussions with their parents, it was believed that these activi-   tionnaire design
ties might be good candidates to compete for students' time and attention. In addition to activities   for this study
that are primarily solitary (e.g., reading, writing), the list contained activities that could be carried
out either alone or with others (e.g., shopping, media events, sports, games). The category of
"other" was also provided to allow students to write in any favorite activities that were not included
in the list. Question 2 asked the students to estimate how much time they typically spent each day
reading for pleasure outside of the school day, followed by a set of options (e.g., none, 5–10 min,
10–20 min). Question 3 provided a list of common reading materials (e.g., poems, novels, news-
papers) and asked the students to indicate which types they enjoyed reading for pleasure. The
opportunity to indicate "none of the above" and "other" (write in) was provided to compensate
for anything that had been omitted from the list. Upon completion of the testing, all students were
rewarded with a ballpoint pen.

Results

Table 1 reports the results of Question 1, free-time activities, showing the percentage of students   (17)
who selected each item as something they liked to do. For all students combined ($N = 200$), the
most popular activities were listening to music/going to concerts (78%), watching television or
videos (77%), playing sports (68%), and playing computer or video games (63%). Least popular
activities were cooking (32%), running or walking (33%), writing (34%), and arts and crafts (38%).
Reading (51%) was a moderately popular activity. For the category of "other," the most popular
write-in activity was spending time with friends (e.g., sleepovers, playing with friends, visiting
friends' homes, having friends come to visit), especially for girls. Fourteen sixth graders (4 boys, 10
girls) and 11 ninth graders (2 boys, 9 girls) wrote in this activity.

For each activity listed on the questionnaire, the data were analyzed using a 2 × 2 (grade × gen-   (18)
der) analysis of variance (ANOVA) with Bonferroni corrections for multiple comparisons (adjusted
alpha = .003). Effect sizes were computed using the eta coefficient (Meline & Schmitt, 1997) and
were interpreted as follows: small = .10–.23; medium = .24–.36; large = .37–.71 (Cohen, 1969,
p. 276). For grade, statistically significant main effects were obtained for swimming, $F(1, 196) =$
13.25, $p = .0003$, $\eta = .25$; riding a bicycle or scooter, $F(1, 196) = 20.86$, $p < .0001$, $\eta = .31$; using
e-mail $F(1, 196) = 9.90$, $p = .0019$, $\eta = .22$; and reading, $F(1, 196) = 15.70$, $p = .0001$, $\eta = .27$. Effect

sizes were small for using e-mail and medium for swimming, riding a bicycle or scooter, and reading. Tukey's studentized range (honestly significant difference [HSD]) test ($p = .05$) indicated that ninth graders showed a stronger preference than sixth graders for e-mail, whereas sixth graders showed a stronger preference than ninth graders for swimming, riding a bicycle or scooter, and reading.

(19)   For gender, statistically significant main effects were obtained for playing computer or video games, $F(1, 196) = 23.14$, $p < .0001$, $\eta = .32$; playing sports, $F(1, 196) = 15.05$, $p = .0001$, $\eta = .27$; talking on the phone, $F(1, 196) = 20.74$, $p < .0001$, $\eta = .31$; using e-mail, $F(1, 196) = 14.03$, $p = .0002$, $\eta = .26$; shopping, $F(1,196) = 83.36$, $p < .0001$, $\eta = .55$; writing, $F(1, 196) = 73.30$, $p < .0001$, $\eta = .52$; and cooking, $F(1, 196) = 9.52$, $p = .0023$, $\eta = .22$. Effect sizes were small for cooking; medium for playing computer or video games, playing sports, talking on the phone, and using e-mail; and large for shopping and writing. Tukey's (HSD) test ($p = .05$) showed that boys preferred playing computer or video games and playing sports, whereas girls preferred talking on the phone, using e-mail, shopping, writing, and cooking. No interactions between grade and gender were statistically significant.

TABLE 1
Percentage of students who responded positively to each item listed under the question, "How do you like to spend your free time?" (standard deviations are reported).

	Grade 6			Grade 9			Grades 6 & 9		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
A. watching TV or videos	88 (33)	74 (44)	81 (39)	74 (44)	70 (46)	72 (45)	81 (39)	72 (45)	77 (43)
B. playing computer or video games	82 (39)	58 (50)	70 (46)	74 (44)	36 (48)	55 (50)	78 (42)	47 (50)	63 (49)
C. playing sports	82 (39)	56 (50)	69 (46)	78 (42)	54 (50)	66 (48)	80 (40)	55 (50)	68 (47)
D. running or walking	32 (47)	26 (44)	29 (46)	30 (46)	42 (50)	36 (48)	31 (46)	34 (48)	33 (47)
E. swimming	54 (50)	64 (48)	59 (49)	38 (49)	30 (46)	34 (48)	46 (50)	47 (50)	47 (50)
F. skating	46 (50)	42 (50)	44 (50)	54 (50)	22 (42)	38 (49)	50 (50)	32 (47)	41 (49)
G. riding a bicycle or scooter	78 (42)	70 (46)	74 (44)	56 (50)	32 (47)	44 (50)	67 (47)	51 (50)	59 (49)
H. playing cards or board games	64 (48)	40 (49)	52 (50)	36 (48)	32 (47)	34 (48)	50 (50)	36 (48)	43 (50)
I. talking on the phone	38 (49)	64 (48)	51 (50)	50 (51)	84 (37)	67 (47)	44 (50)	74 (44)	59 (49)
J. using e-mail	28 (45)	42 (50)	35 (48)	38 (49)	74 (44)	56 (50)	33 (47)	58 (50)	46 (50)
K. listening to music/going to concerts	68 (47)	80 (40)	74 (44)	74 (44)	90 (30)	82 (39)	71 (46)	85 (36)	78 (42)
L. shopping/going to the mall	28 (45)	72 (45)	50 (50)	26 (44)	90 (30)	58 (50)	27 (45)	81 (39)	54 (50)

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	Grade 6			Grade 9			Grades 6 & 9		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
M. reading	58	70	64	30	44	37	44	57	51
	(50)	(46)	(48)	(46)	(50)	(49)	(50)	(50)	(50)
N. writing	12	52	32	06	64	35	09	58	34
	(33)	(50)	(47)	(24)	(48)	(48)	(29)	(50)	(47)
O. cooking	22	48	35	22	36	29	22	42	32
	(42)	(50)	(48)	(42)	(48)	(46)	(42)	(50)	(47)
P. arts & crafts	34	54	44	28	36	32	31	45	38
	(48)	(50)	(50)	(45)	(48)	(47)	(46)	(50)	(49)
Q. other (write in)_____	46	40	43	44	44	44	45	42	44
	(50)	(49)	(50)	(50)	(50)	(50)	(50)	(50)	(50)

(20) Table 2 reports the results of Question 2, the amount of time spent reading for pleasure. For each time block, the data were analyzed using a 2 × 2 (grade × gender) ANOVA (with Bonferroni corrections; adjusted alpha = .006). Effect sizes were computed using the eta coefficient (Cohen, 1969; Meline & Schmitt, 1997). For grade, no statistically significant main effects were obtained. For gender, the only statistically significant main effect was obtained for "none," $F(1, 196) = 9.29$, $p = .0026$, $\eta = .21$, where boys selected this option more frequently than did girls. The effect size was small. No interactions between grade and gender were statistically significant.

(21) Table 3 reports the results of Question 3, preferred reading materials, showing the percentage of students who said they liked each type of material. For all students combined ($N = 200$), the most popular reading materials were magazines (63%), novels (52%), and comics (41%); least popular were plays (12%), technical books (15%), and newspapers (16%). The category of "other" (27%) was moderately popular. For other, some students wrote in the names of specific books (e.g., *Harry Potter*) or themes (e.g., pets, adventure, science fiction, sports, biographies, mystery, horror) they enjoyed.

(22) For each type of material, the data were analyzed using a 2 × 2 (grade × gender) ANOVA (with Bonferroni corrections; adjusted alpha = .005). Effect sizes were computed using the eta coefficient (Cohen, 1969; Meline & Schmitt, 1997). For grade, a statistically significant main effect was obtained only for magazines, $F(1, 196) = 9.95$, $p = .0019$, $\eta = .22$. The effect size was small. Tukey's (HSD) test ($p = .05$) indicated that ninth graders showed a stronger preference than sixth graders for magazines.

(23) For gender, a statistically significant main effect was obtained only for poems, $F(1, 196) = 19.57$, $p < .0001$, $\eta = .30$. The effect size was medium. Tukey's (HSD) test ($p = .05$) indicated that girls showed a stronger preference than boys for poems. No interactions between grade and gender were statistically significant.

Discussion

(24) Given the importance of reading to lexical development in school-age children and adolescents, this study was conducted to investigate the views of young people with respect to reading as a leisure activity in relation to other free-time options that are likely to compete for their attention. Fortunately, the results indicate that reading is at least a moderately popular free-time activity for students in the 11- to 15-year age range. Yet at the same time, the study indicates that many other activities are preferred over reading, such as listening to music/going to concerts, watching television or videos, playing sports, and playing computer or video games. The study also indicates that interest in reading as a free-time activity declines during these years, whereas interest in using e-mail increases, consistent with the trend for young people to spend more time socializing with peers as they transition into adolescence (Raffaelli & Duckett, 1989).

TABLE 2
Percentage of students who selected each option in response to the request, "Please estimate how much time you spend each day, on average, reading for pleasure outside of the school day" (standard deviations are reported).

	Grade 6			Grade 9			Grade 6 & 9		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
A. none	14	02	08	20	06	13	17	04	11
	(35)	(14)	(27)	(40)	(24)	(34)	(38)	(20)	(31)
B. 5–10 minutes	16	10	13	28	22	25	22	16	19
	(37)	(30)	(34)	(45)	(42)	(44)	(42)	(37)	(39)
C. 10–20 minutes	12	14	13	10	14	12	11	14	13
	(33)	(35)	(34)	(30)	(35)	(33)	(31)	(35)	(33)
D. 20–30 minutes	22	28	25	12	22	17	17	25	21
	(42)	(45)	(44)	(33)	(42)	(38)	(38)	(44)	(41)
E. 30–60 minutes	22	28	25	18	18	18	20	23	22
	(42)	(45)	(44)	(39)	(39)	(39)	(40)	(42)	(41)
F. 1–2 hours	12	18	15	06	12	09	09	15	12
	(33)	(39)	(36)	(24)	(33)	(29)	(29)	(36)	(33)
G. 2–3 hours	0	0	0	04	0	02	02	0	01
	(0)	(0)	(0)	(20)	(0)	(14)	(14)	(0)	(10)
H. more than 3 hours	02	0	01	02	06	04	02	03	03
	(14)	(0)	(10)	(14)	(24)	(20)	(14)	(17)	(16)

(25)   Differences between boys and girls also emerged. Boys preferred playing computer or video games and playing sports; girls preferred talking on the phone, using e-mail, shopping, writing, and cooking. Boys were more likely than girls to report that they spent no time reading for pleasure. For all students combined, the most popular reading materials were magazines, novels, and comics; least popular were plays, technical books, and newspapers. Older students showed a stronger preference than younger ones for magazines, and girls showed a stronger preference than boys for poems.

(26)   Reports have indicated that the amount of time that is spent reading predicts word knowledge (e.g., Cunningham & Stanovich, 1991; Stanovich & Cunningham, 1992; West et al., 1993). This is thought to occur because written language exposes learners to large numbers of unfamiliar words, leading them to infer the meanings of those words through metalinguistic strategies—morphological analysis and contextual abstraction (Nippold, 1998). Because word knowledge plays a critical role in academic success and in other intellectual pursuits (Sternberg & Powell, 1983), it is important that school-age children and adolescents spend time reading a variety of materials and that their interest in reading continues into adulthood. Pleasure reading can expose students to new words and allow them to cultivate a positive attitude toward reading as they refine their basic reading skills (e.g., fluency), building confidence in themselves as readers (Worthy et al., 1999).

(27)   This is not to say that other free-time activities are unimportant. For example, in the present study, many participants indicated that they enjoyed socializing with friends through phone calls, e-mail, and personal visits. Because socializing is an activity that offers emotional support and contributes to personal well-being through the lifespan (Raffaelli & Duckett, 1989; Rawlins, 1992), it should be encouraged. In addition, many participants reported that they enjoyed physical activities such as playing sports, swimming, and riding a bicycle or scooter—all of which can benefit one's health. Nonetheless, it is helpful to know where reading fits into the larger picture of free-time options for today's youth, some of whom spend little or no time reading for pleasure.

TABLE 3
Percentage of students who responded positively to each item listed under the question, "What kinds of materials do you like to read for pleasure?" (standard deviations are reported).

	Grade 6			Grade 9			Grades 6 & 9		
	Boys	Girls	Combined	Boys	Girls	Combined	Boys	Girls	Combined
A. poems	14	24	19	08	48	28	11	36	24
	(35)	(43)	(39)	(27)	(50)	(45)	(31)	(48)	(43)
B. short stories	38	40	39	18	44	31	28	42	35
	(49)	(49)	(49)	(39)	(50)	(46)	(45)	(50)	(48)
C. plays	10	16	13	04	16	10	07	16	12
	(30)	(37)	(34)	(20)	(37)	(30)	(26)	(37)	(32)
D. novels	44	64	54	42	56	49	43	60	52
	(50)	(48)	(50)	(50)	(50)	(50)	(50)	(49)	(50)
E. comics	58	38	48	36	32	34	47	35	41
	(50)	(49)	(50)	(48)	(47)	(48)	(50)	(48)	(49)
F. technical books	28	12	20	10	08	09	19	10	15
	(45)	(33)	(40)	(30)	(27)	(29)	(39)	(30)	(35)
G. newspapers	18	06	12	22	16	19	20	11	16
	(39)	(24)	(33)	(42)	(37)	(39)	(40)	(31)	(36)
H. magazines	50	54	52	62	84	73	56	69	63
	(51)	(50)	(50)	(49)	(37)	(45)	(50)	(46)	(49)
I. none of the above	04	04	04	06	02	04	05	03	04
	(20)	(20)	(20)	(24)	(14)	(20)	(22)	(17)	(20)
J. other (write in)_____	36	30	33	14	26	20	25	28	27
	(48)	(46)	(47)	(35)	(44)	(40)	(44)	(45)	(44)

Study Limitations

One limitation of the present study is that it focused only on students who were attending public (28) schools located in lower middle-income neighborhoods in western Oregon. It is possible that different results might have been obtained in schools representing additional socioeconomic levels located in diverse regions of the United States. Another caveat is that the present study focused exclusively on leisure-time reading and did not investigate the amount of time that students spent on other types of reading, such as that required for school assignments. It seems possible that some of the students who reported spending little time reading for pleasure (e.g., ninth graders) may have been spending more time reading for school assignments, particularly if they were college bound. These possibilities should be investigated in future research. In addition, the literacy habits of various subgroups should be examined. This could include, for example, students who have been identified as having language and/or reading disorders, and those who show different levels of reading proficiency (e.g., strong, average, weak).

Implications

In any case, if students are successfully engaging in large amounts of academic reading, there is no (29) reason to be concerned about their exposure to new vocabulary words. However, for those who spend little time reading for pleasure or for school assignments, steps should be taken to promote their interest in reading. School-based SLPs should take note of these patterns, particularly as they occur in children and adolescents with language disorders, as it is common for these young people

to experience deficits in reading and in word learning (e.g., Catts & Kamhi, 1999; Kail et al., 1984; Kail & Leonard, 1986; McGregor et al., 2002; Nippold & Schwarz, 2002). In addition, SLPs should note the pleasure-reading habits of struggling readers, as these students also could benefit from increased opportunities to read. As indicated earlier, a certain portion of students in this district (and in many districts in Oregon) failed to meet the state standards in reading as tested by the OSA, data that were obtained from the Oregon Department of Education Web site. Information concerning the literacy habits of students who are struggling to meet state standards can be helpful as SLPs consult with other professionals who may be less familiar with the reciprocal relationship between language and literacy development.

(30)   Fortunately, much can be done in school settings to encourage strong literacy habits in all students as SLPs work collaboratively with teachers, principals, psychologists, librarians, parents, and the students themselves. For example, the activities described below could be spearheaded by the school-based SLP:

◆ *Organize book clubs at school.* High schools and middle schools may offer clubs similar to the successful "Oprah book clubs" that were broadcast on national television. For this activity, books were selected by the television talk show host Oprah Winfrey and read by the general public, followed by interactive discussions on television. Similarly, a ninth-grade book club might vote on a selection of student-recommended books to be read by the club and discussed during their weekly meetings, facilitated by student leaders. For a sixth-grade club, options might include the *Harry Potter* books, which are frequently enjoyed by older children and young adolescents. In addition to their intriguing story lines, these books contain a wealth of low-frequency words used in colorful and imaginative ways, as evidenced in the following passage from *Harry Potter and the Goblet of Fire* (Rowling, 2000):

> Slowly, magnificently, the ship rose out of the water, gleaming in the moonlight. It had a strangely skeletal look about it, as though it were a resurrected wreck, and the dim, misty lights shimmering at its portholes looked like ghostly eyes. Finally, with a great sloshing noise, the ship emerged entirely, bobbing on the turbulent water, and began to glide toward the bank. (p. 245)

Book clubs with different themes (e.g., mystery, adventure, animals) and reading levels (e.g., strong, average, weak) could be organized, and reluctant readers could receive academic credit for participating. In organizing these clubs, students should be grouped so that weaker readers are not competing with stronger ones and being subjected to peer ridicule. As appropriate, weaker readers might be asked to lead book clubs for younger students in order to build their own confidence as readers. Alternatively, they might be assigned to book clubs led by mature and supportive adults. For example, a successful book club in an Oregon high school, started by a school librarian, includes senior citizens (e.g., retired teachers) who volunteer their time, helping to engage the students in lively discussions about the books and sharing their unique generational perspectives (Williams, 2003). In working with weaker readers, volunteers will need to understand the students' difficulties and know how to manage them positively. Thus, the SLP may need to train and supervise these volunteers carefully.

◆ *Provide incentives and reward students for reading books and other materials (e.g., magazines, newspapers, plays) at school and at home.* For example, on completing a book, article, or play, a student could earn a ticket to deposit in a special box in the principal's office. At regular intervals, a ticket could be drawn and a desirable prize could be awarded to the lucky ticket holder.

◆ *Provide blocks of class time each day (e.g., 25 min) for "sustained silent reading" (SSR), where all students are required to read a book, magazine, or newspaper of their choice.* Given that many children, as they transition into adolescence, show less interest in reading as a leisure activity, it is beneficial to provide this type of structured opportunity for them to read during the school day. Immediately following each SSR block, students can be requested to spend the next 5 min discussing what they read with a classmate, thereby appealing to the adolescent need for socialization and peer interaction.

◆ *Encourage students to visit the school library and to take books home.* Ensure that the library contains an adequate supply of books for students of differing backgrounds, interests, and levels of reading proficiency. This should include multiple copies of books that have been adapted for weaker readers such as classic novels (e.g., *The Red Badge of Courage, David Copperfield, Treasure Island*) and short biographies of sports heroes and movie stars (PCI Educational Publishing,

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2003). Given the findings of the present study, simplified books on sports (e.g., baseball, football, hockey) might be of interest to ninth-grade boys, many of whom indicated enjoyment of sports-related leisure activities but little interest in reading for pleasure. A selection of high-interest books on tape also should be available for students who require additional support when reading.

♦ *Take note of students' preferred reading materials and encourage their use.* Based on the results of the present study, SLPs can expect to find differences in reading preferences based on a student's age or gender. For example, as shown in Table 3, poems were of less interest to ninth-grade boys than to ninth-grade girls, but both boys and girls enjoyed magazines. Given that research has shown that popular magazines can provide exposure to low-frequency words (Cunningham & Stanovich, 1998), magazines should be acceptable for free-time reading.

♦ *Conduct informal surveys of students in the district to determine the names of specific magazines, comics, and books that are currently popular with boys and girls at different grade levels, information that may change rather quickly.* Stocking school libraries and classrooms with these particular materials can help to motivate reluctant readers and generate interest in pleasure reading.

♦ *Explore with students their reasons for rejecting certain types of reading materials.* For example, a ninth-grade boy's dislike for poems may stem from having been forced to read adult-selected works depicting themes that were irrelevant to him (e.g., Emily Dickinson's poems on love). Providing students with a wide range of options depicting themes that interest them, such as horror (e.g., "The Raven" by Edgar Allan Poe, 1884) or adventure (e.g., "Paul Revere's Ride" by Henry Wadsworth Longfellow, 1963), may encourage them to explore this genre.

♦ *Encourage parents to support these efforts by making them aware of the importance of reading and requesting their assistance through parent–teacher organizations designed to secure materials and personnel for the school library.* Additionally, parents can be asked to hold daily sessions at home where they read and discuss with their child or adolescent favorite books, magazines, comic strips, or sections of the newspaper (e.g., sports, movies, television, advice). Contrary to popular myth, as children become adolescents, they continue to enjoy spending time with their parents and other family members (Raffaelli & Duckett, 1989).

For additional information on ways to promote strong literacy habits in school-age children and adolescents, SLPs may wish to consult various Web sites. For example, the International Reading Association (IRA; http://www.reading.org) is an excellent resource for lists of books that are of high interest to adolescents, as judged by students in Grades 7 through 12 attending schools in the United States. This Web site also provides research-based information on how to assist struggling readers, which often includes children and adolescents with language disorders. (31)

It is difficult to overestimate the importance of reading during childhood and adolescence. Yet the present study indicates that as children become adolescents, their interest in reading as a leisure activity may decline as other free-time options compete for their attention. A decline in reading is problematic for students who avoid all other kinds of reading and for those whose language and literacy skills are weak. Fortunately, suggestions such as those offered above can be implemented quite easily, and it is clear that much can be done within school settings to maintain and even expand students' enthusiasm for reading when their individual needs and preferences are considered. Given the intellectual rewards that can accrue from a lifetime of reading, a modest investment in adolescent literacy programs can bring monumental rewards to society. (32)

Acknowledgments

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Appendix.

Student Questionnaire

Please tell us a little about yourself by answering the following questions. There are no "right or wrong" answers. We just want to know more about you and your interests.

Collecting
data through a
questionnaire

1. How do you like to spend your free time?
   Circle all that apply:
   A. watching TV or videos
   B. playing computer or video games
   C. playing sports (e.g., basketball, baseball, football, soccer, etc.)
   D. running or walking
   E. swimming
   F. skating (skate board or roller blades)
   G. riding a bicycle or scooter
   H. playing cards or board games (e.g., Monopoly, chess, checkers, etc.)
   I. talking on the phone with friends or relatives
   J. using e-mail with friends or relatives
   K. listening to music/going to concerts
   L. shopping/going to the mall
   M. reading (e.g., books, magazines, newspapers, etc.)
   N. writing (e.g., diary, poetry, notes to friends, etc.)
   O. cooking
   P. arts & crafts
   Q. other (write in) _____

2. Please estimate how much time you spend each day, on average, reading for pleasure outside of the school day. This includes reading that you **choose** to do. Circle the **one** best answer:
   A. none
   B. 5–10 minutes
   C. 10–20 minutes
   D. 20–30 minutes
   E. 30–60 minutes
   F. 1–2 hours
   G. 2–3 hours
   H. more than 3 hours

3. What kinds of materials do you like to read for pleasure? Circle all that apply:
   A. poems
   B. short stories
   C. plays
   D. novels
   E. comics
   F. technical books (e.g., auto repair, science, history, computers, etc.)
   G. newspapers
   H. magazines
   I. none of the above
   J. other (write in) _____