

3

ETHICAL ISSUES IN CONDUCTING RESEARCH

CHAPTER OUTLINE

CHAPTER OBJECTIVES

Ensuring the Protection of Human Participants

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 - Capacity
 - Information
 - Voluntariness

RESEARCH IN ACTION

- Harm
 - Potential Hazards to Participants
 - Determining the Degree of Harm
- Privacy
 - Issues in Research Affecting Privacy
- Deception
 - Reasons for Deception

SIMULATION 3.1

Ethical Considerations in Quantitative and Qualitative Research

- Ethics and Quantitative Research
- Ethics and Qualitative Research

- Participant Observation
- Privacy Issues
- Degree of Deception

Monitoring Ethics in Research: Institutional Review Boards

- Federal Requirements for IRBs

Ethics and Professionalism

- Integrity During Execution of the Study
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 - Plagiarism and Maintaining Integrity
 - Simultaneous Submission
 - Ethical Issues in Authorship
- Sanctions for Breaches of Integrity

CHAPTER SUMMARY

KEY TERMS

STUDENT STUDY SITE

SIMULATION FEEDBACK 3.1

CHAPTER OBJECTIVES

After reading Chapter 3, you should be able to do the following:

- ✦ Describe the three elements of informed consent for ensuring the protection of human subjects.
- ✦ Discuss who must consent to participation in a research study and how it should be given.
- ✦ Describe “harm” as a potential hazard to participants, and identify strategies for determining its level of acceptability within a research study.
- ✦ Identify the issues in research that directly affect the “privacy” of an individual.
- ✦ Define “deception” and the rationale for why it may be used in a research study.
- ✦ Distinguish between ethical considerations in quantitative and qualitative research.
- ✦ Understand the role of institutional review boards in monitoring ethics in research.
- ✦ Understand the importance of maintaining integrity in the execution of a research study and the dissemination of results.

Ethics has become a cornerstone for conducting effective and meaningful research. As such, the ethical behavior of individual researchers is under unprecedented scrutiny (Best & Kahn, 2006; Field & Behrman, 2004; Trimble & Fisher, 2006). In today’s society, any concerns regarding ethical practices will negatively influence attitudes about science, and the abuses committed by a few are often the ones that receive widespread publicity (Mauthner, Birch, Jessop, & Miller, 2003).

This chapter focuses primarily on issues, activities, and situations that are far from black and white in terms of ethics. A balanced presentation remains our goal. There are no simple answers or solutions. Although guidelines are suggested, each researcher must be responsible for ethical issues within an investigation. This chapter will not provide a “complete ethical checklist” that covers all questions, settings, or concerns. Such a task would be impossible and not terribly helpful in considering the variety of research situations that may be encountered. Although some guidelines are relatively firm, the best insurance against unethical research practices is the knowledgeable individual scientist who can intelligently consider the circumstances being faced.

Researchers with their inquiring minds are compelled to press on in the development and dissemination of new knowledge. The question becomes not only a matter of whether it is ethical to conduct research, but also whether it is *unethical not to* engage in inquiry. Are researchers guilty of unethical conduct if they do not engage in systematic inquiry conducted with the safety of participants in mind, and with fully informed consent? While ethical considerations may initially be viewed as roadblocks to beginning a study, they are clearly integral to the process. Attention to the ethics of an investigation requires extra thought and effort, but the payoff for a study that is both methodologically intact and ethically sound is extremely exhilarating.

ENSURING THE PROTECTION OF HUMAN PARTICIPANTS

Every researcher has a responsibility to protect the participants in an investigation. The *Ethical Principles of Psychologists and Code of Conduct* of the American

Psychological Association (APA) notes that psychologists must be concerned with “the welfare and protection of the individuals and groups with whom psychologists work and the education of members, students, and the public regarding ethical standards of the discipline” (American Psychological Association, 2002, p. 3). Similarly, the *Ethical Standards of the American Educational Research Association* (AERA) states, “It is of paramount importance that educational researchers respect the rights, privacy, dignity, and sensitivities of their research populations and also the integrity of the institutions within which the research occurs. Educational researchers should be especially careful in working with children and other vulnerable populations” (American Educational Research Association, 2002, p. 3). Although the purview of APA and AERA is psychology and education, respectively, social science and educational research involve many other fields of study where professionals serve in multiple roles (e.g., researchers as well as laboratory supervisors, administrators, teachers, or mentors) (Behnke, 2004; Diekema, 2005; Haverkamp, 2005).

Whether a researcher is a psychologist, educator, or anthropologist, the primary responsibilities to participants are clear: obtain consent, protect from harm, and ensure privacy. However, there is one area of responsibility that is often less clear for both the researcher and the participants: intentional deception. These areas are covered in more detail below.

Consent

Consent involves the procedure by which an individual may choose whether or not to participate in a study. The researcher’s task is to ensure that participants have a complete understanding of the purpose and methods to be used in the study, the risks involved, and the demands placed upon them as a participant (Best & Kahn, 2006; Jones & Kottler, 2006). The participant must also understand that he or she has the right to withdraw from the study at any time.

The two forms of consent are direct and substitute. *Direct consent* is the most preferred because agreement is obtained directly from the person to be involved in the study. *Substitute consent*, or third-party consent, is given by someone other than the person to be involved in the study. Substitute consent may be obtained when it is determined that the person does not have the capacity to make the decision or is dependent on others for his or her welfare, such as children under the age of 18 or people with cognitive or emotional disabilities (Nagy, 2005a; Roberts, Geppert, Coverdale, Louie, & Edenharder, 2005). Both direct and substitute consent must meet the requirements for **informed consent**.

From a legal standpoint, *informed consent* involves three elements: **capacity**, **information**, and **voluntariness**. All three elements must be present for consent to be effective (Drew & Hardman, 2007). It is also important to understand that consent is seldom (if ever) permanent and may be withdrawn at any time. (The act of withdrawing consent must also include the elements of capacity, information, and voluntariness.)

Capacity

Capacity is a person’s ability to acquire and retain knowledge. The ability to evaluate the information received and make a choice based on this evaluation is fundamental to the element of capacity. Based on the person’s ability to acquire, retain, and evaluate information, he or she is deemed *competent* or *incompetent*. Competence is partially determined by legal qualification and ability. Legal qualification is most often viewed in terms of age; individuals under the age of majority (generally 18 years) are considered to be legally unable to make certain decisions. Children’s rights are then legally protected by obtaining permission from parents or legal guardians. Children’s rights are ethically protected when the person giving the consent has a primary interest in the child’s welfare (Field & Behrman, 2004).

The second factor in determining competence is the individual's ability to give consent. (Does the individual understand the nature and consequences of giving consent?) This factor is again relevant to the involvement of children in research studies but is also applicable to others as well (e.g., persons with cognitive or emotional disabilities, or those who are incarcerated) (Hardman et al., 2006). First, from a legal standpoint, a person is considered competent unless they have been adjudicated through the court system as being incompetent. It cannot be assumed that because individuals of adult age may have a cognitive or emotional disability they are not competent to make decisions regarding their individual welfare. Second, even if the individual is deemed legally competent, it does not relieve the researcher of the responsibility to ensure that the participant understands the information provided and can exercise the free power of choice. Clearly the capacity element is not simple. It often becomes even more complex in the context of implementation, which is discussed in later sections of this chapter.

Information

Determination of whether information has been communicated to a participant in an effective manner is based on both *substance* and *manner*. What information was given, and how was it presented? The information must be planned and presented so it can be completely understood, and it must be fully understood by the participant. It is the researcher's responsibility to see that this is accomplished. This perspective places a great responsibility on an investigator and makes assurance that effective consent has been obtained even more complicated.

Voluntariness

Voluntary consent is concerned with each individual's ability to exercise the free power of choice without the intervention of force, fraud, deceit, duress, or other forms of constraint or coercion. This right to exercise choice must be present throughout the entire research process. The intent of this interpretation is that no such "constraint or coercion" must be either explicit or implicit on the part of the investigator.

The collective consideration of all three elements of consent has great impact on the manner in which a study is planned and executed. Each research situation presents a different set of circumstances, and consent procedures must be adapted accordingly. For investigators in certain areas (e.g., child development, cognitive disabilities, mental health), the type of participants frequently studied requires special consideration and protection (see, for example, Hardman et al., 2006; Roberts et al., 2005). Such participants will receive repeated attention in our discussion and examination of consent issues regarding *who* and *when*.

Who may give consent? The first answer to this question is the parent, guardian, or other agent legally responsible for the person and authorized to act on the person's behalf. Although this may seem simple, it is not, and the prerogative of consent is not constant. It varies greatly from situation to situation and among participants. The question of who may give consent is not a difficult one for those who have not been adjudicated as being "incompetent." Adults can give their own consent to participate in research. It is also clear that they must consent on a *voluntary* basis and with complete information concerning the nature and consequences of participation. Many individuals deemed incompetent and in need of special protection are thought to be unable to give consent on their own. They may be lacking in capacity because of cognitive or emotional disabilities, or because they are legally too young.

They may appear very vulnerable to either explicit or implicit coercion (thus violating the truly voluntary element of consent). They may have a combination of these and other characteristics that render them unable to exercise free will and make decisions. For such individuals, the question then becomes one of who can give consent on their behalf (and what should be considered in the process).

The parent, guardian, or other agent (e.g., institutional administrator) may give consent unless it comes to someone's attention that the *interests of the person who is consenting are at odds with what may be the interests of the subject*. For situations in which participants cannot provide their own consent, the researcher should not assume that "parental" consent is sufficient (Drew & Hardman, 2007). There is a need to constantly be vigilant in these situations. The American Psychological Association (2002) suggests that obtaining legal consent from the parent or guardian does not relieve the researcher of respecting the wishes of the child. The APA suggests,

For persons who are legally incapable of giving informed consent, psychologists nevertheless (1) provide an appropriate explanation, (2) seek the individual's assent, (3) consider such persons' preferences and best interests, and (4) obtain appropriate permission from a legally authorized person, if such substitute consent is permitted or required by law. (p. 7)

Thus, consent from both the guardian *and* the child is needed.

It is important to note that the conventional wisdom associated with consent may not be appropriate for children. Consent, as a legal term, is not considered appropriate to use with minors. As noted in the APA code above, a child's agreement or refusal to participate is more appropriately described as assent or dissent. Researchers have investigated the ability of children to give consent because of ongoing concerns that these young participants are at risk for some level of implicit coercion (see, for example, Roberts et al., 2005). Findings do confirm that children have some capacity to make decisions about their participation, but there appear to be age-related problems regarding the degree to which they can do so freely. Some evidence suggests that children at about the seventh-grade level struggle to understand their prerogatives compared to adults (Diekema, 2005). The notion of not agreeing with their adult consent-giver (parent or guardian) is not only difficult to understand for children, it is inconsistent with much of the other information they receive daily. This is even more challenging for younger children and for those with cognitive disabilities (Field & Behrman, 2004; Gelfand & Drew, 2003). Investigators must use their best professional judgment in determining who should be involved in the consent process (see Box 3.1).

When must consent be given? Some research circumstances clearly require consent, whereas others are more subject to debate. Risk to participants may include a number of different situations, ranging from actual physical harm in the form of pain to potential psychological harm such as emotional stress. Similarly, the forfeiture of personal rights may vary greatly, from a serious invasion of privacy to a situation in which the participants are not threatened in any significant fashion.

The factors involved when consent should be obtained are similar to those regarding who can provide effective consent. Researchers must exercise their best professional judgment. However, the rule of thumb is *when in doubt, ask for permission*. If it is unclear whether or not consent is needed, it is prudent to err on the side of caution. Smith (2003) noted that the APA allows for no consent to be obtained

when such avoidance is coded in federal law or regulations, *or* when the research is unlikely to distress or harm participants and involves one of the following:

The study of normal educational practices, curricula, or classroom management methods conducted in educational settings

Anonymous questionnaires, naturalistic observations, or archival research for which disclosure of responses would not place participants at risk of criminal or civil liability or damage their financial standing, employability, or reputation, and for which confidentiality is protected

The study of factors related to job or organization effectiveness conducted in organizational settings for which there are no risks to participants' employability, and confidentiality is protected. (pp. 56–57)

BOX 3.1 AERA Guiding Standards for Educational Researchers Working With Children and Vulnerable Populations

Education, by its very nature, is aimed at the improvement of individual lives and societies. Further, research in education is often directed at children and other vulnerable populations. . . . We should strive to protect these populations, and to maintain the integrity of our research, of our research community, and of all those with whom we have professional relations. We should pledge ourselves to do this by maintaining our own competence and that of people we induct into the field, by continually evaluating our research for its ethical and scientific adequacy, and by conducting our internal and external relations according to the highest ethical standards. . . . Educational researchers should be especially careful in working with children and other vulnerable populations. . . . Standards intended to protect the rights of human subjects should not be interpreted to prohibit teacher research, action research, and/or other forms of practitioner inquiry so long as: the data are those that could be derived from normal teaching/learning processes; confidentiality is maintained; the safety and welfare of participants are protected; informed consent is obtained when appropriate; and the use of the information obtained is primarily intended for the benefit of those receiving instruction in that setting.

AERA Standards

Educational researchers should

- exercise caution to ensure that there is no exploitation for personal gain of research populations or of institutional settings of research.
- not use their influence over subordinates, students, or others to compel them to participate in research.
- be mindful of cultural, religious, gender and other significant differences within the research population in the planning, conduct, and reporting of their research.
- consider and minimize the use of research techniques that might have negative social consequences, for example, experimental interventions that might deprive students of important parts of the standard curriculum.
- be sensitive to the integrity of ongoing institutional activities and alert appropriate institutional representatives of possible disturbances in such activities which may result from the conduct of the research.
- communicate their findings and the practical significance of their research in clear, straightforward, and appropriate language to relevant research populations, institutional representatives, and other stakeholders.

SOURCE: Adapted from American Educational Research Association (2005). Ethical Standards II. Guiding Standards: Research Populations, Educational Institutions, and the Public. [on-line]. Retrieved September 23, 2005 from <http://www.aera.net/aboutaera/?id=174>.

RESEARCH IN ACTION

KEY POINTS IN THE CHAPTER REFLECTED IN THIS BOX:

- Anticipating the various ethical issues in conducting action research.
- Determining what approvals will be needed from institutional organizations.
- Checking guidelines regarding participant consent and assent.
- Anticipating questions about potential hazards, confidentiality, and other risk factors presented in action research studies (all of which will be asked by approval groups such as IRBs and school research committees).



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OBJECTIVES TO LEARN FROM THIS BOX:

- Understand how action research conducted in a field setting present challenging contexts pertaining to anticipating ethical issues.
- Reflect on how action researchers anticipate and resolve potential risk issues.
- Determine how consent and assent are obtained for these action research studies.

SCENARIO 1: STUDENT ENGAGEMENT IN READING

Emily is beginning to study the effects of engagement on how young students learn to read. She is using what is labeled as concept-oriented reading instruction (CORI) as a means of engaging the experimental group, and her comparison group is going to receive drill and practice (DAP) on words and sentences. Emily reviews the notes on action research found in the AERA Guiding Standards and is a little confused by the wording. Both reading instruction approaches are found in different teacher's teaching styles and she is not sure whether she can consider both of her instructional methods to be normal teaching processes. Surely Emily intends to maintain confidentiality, protect her students' welfare, and the information will be used to benefit students' instruction in general. But do the guidelines mean that she doesn't need consent because this can be considered a normal part of the teaching process?

Emily will need to have her research approved by the Institutional Review Board (IRB) for her university. The best guideline for her to follow is found in the wording "when in doubt, obtain consent." In fact since she is studying young students, Emily will need to obtain consent from her students' parents and also have her students complete an *assent* form that indicates they agree to participate. Before she can begin the study she will need to outline the details of her protocol and have it approved by the IRB. She will need to also obtain permission to conduct her study in the school district where the students are enrolled and then seek consent from parents and assent from the students themselves.

It is unlikely that there is much if any potential hazard to the students. Emily will need to maintain confidentiality of her students' performance (her data). Although confidentiality is an important matter, the data do not raise huge red flags regarding sensitive information. Emily's study will not likely encounter significant ethical issues.

SOURCE: This action research scenario is roughly based on Swan, E. A. (2003). *Concept-oriented reading instruction: Engaging classrooms, lifelong learners*. New York: Guilford Press.

SCENARIO 2: STUDENT SELF-ESTEEM

Daniel is beginning a study to see if his students with learning disabilities have different self-esteem depending on whether they are of Latino or Caucasian descent. He believes that his students have rather low self-esteem and it seems to him that his Latino students' self-esteem is somehow different than that of his Caucasian students.

Both groups of students are normally in Daniel's classes although they are not typically asked questions about their self-esteem. Daniel will need to obtain approval from the IRB at the university because he will be conducting this study as part of his degree program. He will also need to obtain permission from the school district as well as consent from the parents and have the students complete an assent form. Consent and assent forms will be part of the protocol to be approved by the IRB and the school district as will any questionnaire that Daniel intends to use with his students.

Because of the nature of his study, Daniel will have to pay particularly close attention to two of the standards in the AERA Standards. These include being attentive to cultural, religious or other significant matters in all aspects of his research since he is comparing Latino and Caucasian students. The second will be focusing on and minimizing the any potential negative social consequences of asking his participants about self-esteem matters. Daniel's study does raise some attention level because of his comparison groups but any issues can be minimized by careful protocol review and adequate sensitivity.

Think about this: Are you using children and what is the definition of children? What participant consent actions must you take for using children as participants that differ from using adults? What risk factors might be present if any? Who should approve the plan for the study and how do you contact them?

SOURCE: This Action Research scenario is roughly based on Rubin, D. (2000). *Race and self-esteem: A study of Latino and European-American students with learning disabilities*. Unpublished masters thesis, University of Utah, Salt Lake City.

How should consent be obtained? The method of obtaining consent will vary greatly depending on the situation involved and the degree of potential risk for participants. Consent may be obtained less formally (i.e., verbally) if the study creates little or no risk or potential invasion of privacy. In such circumstances, participants may be verbally informed of the nature of the investigation (assuming that the capacity element is present) and give consent verbally. Consent should be obtained in writing in other situations when participants are placed in a more "risky" position (e.g., potential harm, stress, substantial invasion of privacy). This is typically accomplished by providing both written and verbal explanations of the study, and the subject indicates consent by signing the written form. In certain cases, the provision of both verbal and written explanations is not possible, such as in a survey using mailed questionnaires. Usually the subject's willingness to complete a questionnaire is adequate indication of consent. A written explanation of the survey should be included with the questionnaire (often as a part of the instructions *on* the questionnaire) with a clear indication that responses to the questions are voluntary. In all cases, the researcher must remain cognizant of the three elements of consent and also inform the subject that consent can be withdrawn at any time. It is also routine and *required* that research conducted through colleges or universities involve written consent. Figure 3.1 is a sample assent form for children (parental agreement would also be needed).

FIGURE 3.1 Sample Assent Form University Of Utah

ASSENT TO PARTICIPATE IN RESEARCH

(Include title of study and Principal Investigators name headers on each page)

Purpose of Research

We are asking you to take part in a research study because we are trying to learn more about . . . (Outline what the study is about in language that is appropriate to both the child's maturity and age.)

Procedures

If you agree to be in this study you will . . . (Describe the procedures and the duration of participation. Describe what will take place from the child's point of view in a language that is appropriate to both the child's maturity and age.)

Risks

(Describe any risks to the child that may result from participation in the research.)

Benefits

Your involvement in this study will help us to understand . . . (Describe any benefits to the child from participation in the research.)

Alternative Procedures and Voluntary Participation

If you don't want to be in this study, you don't have to participate. Remember, being in this study is up to you and no one will be upset if you don't want to participate or even if you change your mind later and want to stop. Please talk this over with your parents before you decide whether or not to participate. We will also ask your parents to give their permission for you to take part in this study, but even if your parents say "yes," you can still decide not to do this.

Confidentiality

All of your records about this research study will be kept locked up so no one else can see them. (Explain how the records will be kept confidential.)

Person to Contact

You can ask any questions that you have about the study. If you have a question later that you didn't think of now, you can call me (insert your name and telephone number) or ask me next time. (If applicable: You may call me at any time to ask questions about your disease or treatment.)

Consent

Signing my name at the bottom means that I agree to be in this study. (If the study is related to treatment, insert the following: My doctors will continue to treat me whether or not I participate in this study.) My parents and I will be given a copy of this form after I have signed it.

Signature of Subject

Date

Signature of Witness

Date

Harm

Psychologists must take reasonable steps to avoid harming their clients/patients, students, supervisees, research participants, organizational clients, and others with whom they work, and to minimize harm where it is foreseeable and unavoidable. (American Psychological Association, 2002, p. 6)

When psychologists become aware that research procedures have harmed a participant, they take reasonable steps to minimize the harm. (American Psychological Association, 2002, p. 12)

Participants, or their guardians, in an [educational] research study have the right to be informed about the likely risks involved in the research and of potential consequences for participants, and to give their informed consent before participating in research. . . . Participants in research should be made aware of the limits on the protections that can be provided, and of the efforts toward protection that will be made even in situations where absolute confidentiality cannot be assured. It should be made clear to informants and participants that despite every effort made to preserve it, confidentiality may be compromised. (American Educational Research Association, 2005)

The most basic concern in all research is that *no individual is harmed by serving as a participant*, as suggested above by the APA and AERA codes of ethics. In the context of research ethics, **harm** may be broadly defined to include extreme physical pain or death, but also involves such factors as psychological stress, personal embarrassment or humiliation, or myriad influences that may adversely affect the participants in a significant way.

Potential Hazards to Participants

Certain types of investigations present potential harm to participants. Research that involves physically dangerous treatment may present real possibilities for harm if the treatment is “inflicted” on the participants. Unfortunately, there are examples of investigations in which ethical principles were violated in an extreme fashion (see Young, 2005). Other areas of research are specifically designed to investigate the effects of psychological or emotional stress. Such research represents extremely difficult circumstances, especially when the procedures involve actual “infliction” of stress. There is always the possibility that a subject may become seriously ill (e.g., have a stroke or heart attack) as a result of the stress. In addition, the possibility exists that the stress itself may be harmful to participants from a psychological standpoint.

Vulnerable populations. Some studies may be characterized as high risk for harm because of the participants involved. By virtue of characteristics associated with age or disability, an individual can be rendered relatively powerless in exercising free will when choosing whether or not to serve as a research participant. These participants may be less capable of understanding potential harm, or they may feel openly or implicitly coerced in some fashion. People who are institutionalized or incarcerated, such as prisoners, persons with severe disabilities, or people with serious mental illness, may agree to participate in a study either because they “should to show evidence of good behavior” or to gain approval from supervisors. Unfortunately, some troubling examples of ethical violations have occurred with studies involving these individuals (Field & Behrman, 2004; Moser et al., 2004).

Highly vulnerable populations should not be taken advantage of in the name of science. Researchers investigating topics involving these individuals must exercise extreme care. Very young children, the elderly, or people with disabilities may be easily convinced that most activities are important, are of little harm, and should be engaged in for the benefit of society (Drew & Hardman, 2007; Quadagno, 2005).

Determining the Degree of Harm

Vulnerable participants pose a dilemma because of the important need to study these individuals in order to improve their lives and to benefit society. Consequently, a researcher will likely encounter such ethical dilemmas sooner or later. Thoughtful and knowledgeable consideration must guide the process. The researcher must determine what constitutes significant risk, and carefully weigh potential benefits versus potential harm to the subjects.

How much is harmful? Researchers continually face questions regarding what is meant by a *high degree* of vulnerability and a *potential, substantial, or significant* risk. Although the above terms suggest quantification, they refer to issues that are difficult to quantify. Basically, such terminology focuses on perceptions, values, or judgment. As such, there is little probability of consensus concerning their meaning. Even so, these issues cannot be ignored and every researcher must eventually face the question, “How much [harm] is harmful?”

Researchers must decide how much threat, stress, or pain should be considered harmful. Their determination might fall near one end or the other of the continuum (i.e., nothing should ever be done in research that would pose the slightest imposition or threat of stress on a subject versus the interests of science and society are always paramount—individual distress or harm should be discounted in favor of the potential benefit for the larger number). Neither of these extremes can be accepted as a blanket rule. The continuum must be explored more completely and judicious caution exercised.

Some researchers may attempt to fall back on *consent* as a means of dealing with issues related to harm. They may argue that potentially harmful studies can only be undertaken if the participants have effectively consented (have the capacity to understand the potential risk, full information concerning any harm to them that may occur, and voluntarily agree to subject themselves to such potential harm). However, since consent is an essential prerequisite to these investigations, it adds little to our understanding of how much harm is acceptable. Consent, even under the most careful precautions, does not render an investigator free to ignore further responsibility regarding potential harm.

What is the cost/benefit ratio? Another approach to addressing the issue of harm is the cost/benefit ratio. This approach involves a comparison of the potential benefits of a given study with the potential risks to the participants. Presumably, if the benefit of the study outweighs the potential harm, the study is considered ethical, and the opposite would also be true. For example, suppose an investigation were proposed that had potential for solving the inflation problem in the United States. However, to conduct the study, a sample of 1,000 participants would be required to divulge personal details concerning amount and sources of income, as well as the manner in which every dollar was spent. Certainly this represents a substantial invasion of privacy—but there is also a dire need to solve the inflation problem. Do the benefits outweigh the harm? This becomes a matter of individual judgment.

The idea of assessing costs and benefits has considerable appeal. Yet how is this task accomplished? It may be a rather simple matter in business, but in many cases we are confronted with factors that defy measurement. How does one evaluate and predict the harm that might be inflicted on a participant? An equally difficult question involves how one measures and predicts benefit. Or, how does the process of balancing subject harm with potential benefit proceed? These problems lack precise solutions and require careful evaluation. The evaluation process must involve a review by professionals other than the investigator proposing the study (often an institutional or agency “human subjects review board”). If assessments were the sole prerogative of the researcher, a conflict of interest could influence the decision. (After all, the researcher has a vested interest in the study.)

As much as possible, research should be planned and executed in a manner that minimizes harm to participants. A study is always more ethically justifiable when the probability of risk is minimized. In addition, the researcher must be concerned about how long the harmful effects will last after the study is completed, and if they are reversible. It is most desirable to deal with an effect that can be easily reversed and has a short post-investigation duration. A potential harmful effect should be detected early so that the study can be terminated if necessary.

Privacy

The value attached to individual **privacy** has varied throughout history, and vast differences are still evident from one country to another. Privacy has, however, become a “right” that is highly treasured in contemporary Western society.

Science is based on the collection and analysis of data. Educators as well as behavioral and social scientists collect and analyze data concerning people, both as individuals and groups. This is the point at which the goals of research and the right to privacy may come into conflict. Frequently, research of this nature is aimed at obtaining information concerning attitudes, beliefs, opinions, and behavior. Thus, pursuing the goals of science, while guarding against unnecessary invasion of participants’ privacy, presents complex issues.

Issues in Research Affecting Privacy

As with other ethical considerations, privacy has become an increasingly valued right. Seeking privacy is an act of seclusion or confidentiality—removed from public view or knowledge. Total privacy is virtually nonexistent, and people are required on occasion to yield a certain amount of privacy for one reason or another. In some cases, this is done voluntarily to obtain something in return (e.g., a person divulges certain personal information to obtain a credit card). Even in these circumstances, there have been rather dramatic changes recently in the kinds of information that can be requested.

Sensitivity. In considering privacy related to the conduct of research, several factors must be addressed. First, the sensitivity of the data in the view of the individual or group being studied must be considered. For example, certain types of information may be viewed as sensitive under any circumstances. For example, data concerning sexual preference represents information that many people would want to keep private. Other information may be less sensitive, such as one’s favorite color. In addition, many types of information would be considered situationally sensitive, information that would be divulged under certain circumstances but not others (e.g., age, weight, or personal income).

The setting. The setting in which research is being conducted may also be an important factor in considering a potential invasion of privacy. On one end of the continuum, there are those settings that are nearly always considered private, such as a person’s home. The other end of the continuum might be represented by a setting in which privacy is not generally assumed, such as a public park. Some settings may be only situationally private—a person’s home cannot be considered private when a realtor is showing it to a prospective buyer. Clearly, the researcher must consider the setting in which the data are collected if undue invasion of privacy is to be avoided.

Information. A final point regarding privacy involves how public the information is. Subjects may not believe that their privacy has been seriously threatened if only one or two people know (e.g., the researchers collecting the data). It is a totally different story, however, if the investigators publish personal information and opinions in the newspaper. In so doing, they have made the information available to the general

public. This makes it possible for the public to identify *individuals*. Such a breach of confidence should never occur, but this example is not without some base in reality. The researcher must remain very alert concerning the degree to which private information remains confidential, particularly when such information is of a sensitive nature.

A researcher cannot ignore privacy in any study. If a potential problem exists, consent should always be obtained. In addition, the participants should be assured that the data will be held in strict confidence to protect anonymity. Few studies *require* that data be maintained in a form in which participants can be personally identified. As a rule of thumb, researchers should invade the privacy of participants as minimally as possible. If a potential of privacy risk exists, the investigator should take every precaution. Any study that substantially invades privacy may obviously place the participants at risk. Such procedures also place the conduct of science at risk by reducing the public trust vital to the successful pursuit of knowledge.

Deception

Research deception involves an intentional misrepresentation of facts related to the purpose, nature, or consequences of an investigation. In this context, **deception** refers to either an *omission* or a *commission* on the part of the researcher in terms of interactions with participants. An omission deception could mean that the investigator does not fully inform participants about important aspects of the study. Part or all of the information is withheld. A commission involves a situation in which the researcher gives false information about the investigation, either partially or totally. In the first case, participants may not even be aware that a study is in progress, or they may only be informed about a portion of the investigation. In the second situation, participants generally are aware that they are involved in some type of study or activity that is out of the ordinary, but may be given misleading information regarding the actual purpose of the study or activity. In either case, the researcher is misrepresenting the study.

Regardless of the precise nature of deception, it has become a very prominent issue for investigators concerned with the ethics of conducting research. As we move through the first decade of the 21st century, deception is receiving widespread attention in educational and social science research with increasing concerns regarding its use on the Internet (Keller & Lee, 2003; Lichtenberg, Heresco-Levy, & Nitzan, 2004; Mishara & Weisstub, 2005; Nagy, 2005c; Pittenger, 2003).

Reasons for Deception

There are a variety of reasons that deception may be used in research. These include deceiving participants who have become “test-wise” and are suspicious that the purpose of the study is hidden, reducing the amount of influence a group can have on an individual respondent, and pragmatics (limited finances, time, and data sources).

Hidden agenda. Some research participants have become “test-wise” and often believe the “real” purpose of a given study is hidden. This is truer for certain populations than others (notably college sophomores, one of the most “studied” groups in the United States). If participants are *that* suspicious, they may be expected to answer, perform, or generally respond in an atypical manner. Such responses may seriously threaten the soundness of an investigation. Participants may attempt to respond in a manner that they think the researcher desires, or they may try to out-guess the researcher and “sabotage” the study. Some populations are studied frequently, and others are even professional research participants. (Some college students earn part of their monthly income by serving as participants in studies about response to advertisements.) There is even evidence that participants are “wising up” to the research process.

The APA Code of Ethics notes that “Psychologists do not conduct a study involving deception unless they have determined that the use of deceptive techniques is justified by the study’s significant prospective scientific, educational, or applied value and that effective non-deceptive alternative procedures are not feasible” (American Psychological Association, 2002, p. 11). APA continues by noting that deception is not used if it can be expected to cause physical or emotional suffering, *and*, if used, the deception must be explained to participants as early as feasible.

Individual influences. Suppose a study were being conducted on group control of individual actions. In this type of investigation, the study might focus on the amount of influence a group had on individual opinions about the use of drugs. This might be the type of study that would involve intentional deception to a considerable degree. If the participant being observed was suspicious about the purpose of the investigation, he or she might be more or less resistant to group pressure than normally would occur. The researcher would need to account for such an influence by deceiving the participant. The individual may be directly deceived about the purpose of the study, or information may be withheld. If the participant were openly informed about the nature of the study, the outcome would be jeopardized. In this case, the use of intentional deception could backfire. The researcher cannot reveal the exact nature of the investigation, but the participant may be generally suspicious and alter behavior because of those suspicions in a manner unknown to the investigator. Intentional deception is used to control factors important to the study, but suspicion of deception creates problems for control.

The control exerted may relate to the technical soundness of the study or it may relate to the generalizability of the findings (matters that will be examined in detail in later chapters). If one group of participants receives different treatment (deception) than another, the comparison may not *really* involve the treatment. Likewise, if deception is either real or perceived by participants, results might not be transferable to the outside world. Methodological reasons for using intentional deception represent a double-edged sword: they have both advantages and disadvantages. The judgment of the investigator regarding this issue will likely be tested.

Pragmatics. Some reasons for using deception are purely pragmatic. Limited finances, time, and data sources have often led researchers to use deception. For example, if it is too expensive, time consuming, or not feasible to observe a natural occurrence of a particular phenomenon, it might be best studied by creating a simulated incident. Such a situation may arise when the researcher is studying something that only occurs rarely or creates dangerous circumstances when it does occur (e.g., emergencies). This type of deception could involve a staged purse-snatching or mugging with observations focused on the reactions of witnesses. Such an example would necessarily involve deception (and also no pre-study consent) if the witnesses are to behave naturally.

Is deception ethical? The previous discussions illustrate the reasons why researchers use deception and also some of the problems involved in its use. But is deception ethical? One of the most fundamental arguments against deception is that it is unethical and degrading to the participants involved. Lying is generally viewed unfavorably in our society and even deemed immoral. This value places the conduct of science in a dilemma. Science is presumably undertaken for the benefit of society, so should it be associated with acts that are generally thought to be malicious? This is a question that has no direct answer since it is couched in such polarized terms.

Most people would agree that research cannot be clearly declared either ethical or unethical. There are many shades of gray and myriad matters that must be considered. One of the most serious issues facing researchers and the use of deception is the issue of consent. If participants are involved in activities that present potential

risk to them, consent is necessary. However, in studies using deception, informed consent is likely absent. If a study uses deception, participants must at least be given enough information to know the possibility of risk and then voluntarily decide whether or not to participate.

Simulation

Simulation 3.1

Topic: Ethical issues related to participants

Background statement: You are planning a study, which will involve an investigation of a new social studies program with high school students during their sophomore year. You have obtained your subject pool using matched samples from two different social studies classes that form two groups, one that receives the new social studies program (treatment) and one that will receive a placebo activity (control). What ethical issues must you consider in planning your study?

Write your response, then turn to p. 80 for Simulation Feedback 3.1



For additional simulations visit www.sagepub.com/drewstudy

ETHICAL CONSIDERATIONS IN QUANTITATIVE AND QUALITATIVE RESEARCH

In this section, ethical considerations are addressed in the context of quantitative and qualitative research. The purpose is to inform researchers as to the ethical issues that may be specific to a given research approach. Although the discussion here is necessarily brief, the reader is referred to other sources with more in-depth information on the issues.

Ethics and Quantitative Research

Quantitative research involves studies in which the data that are analyzed are in the form of numbers. In this research approach, behaviors are counted, correct answers or errors are counted, and other types of measures are recorded in terms of quantity. Quantitative research involves both experimental and nonexperimental research. Ethical issues in experimental research focus on protecting individuals that *receive* an intervention. For example, an intervention may involve training participants in group communication where a great deal of *self-disclosure* is required. Self-disclosure is a technique whereby people are encouraged to discuss their feelings, attitudes, and experiences (some of which may be quite personal). Does the researcher have the right to use such a treatment? Dealing with this question is a personal decision on the part of the researcher. As discussed earlier, the researcher clearly has the responsibility to fully inform participants about the nature of the activities in the process of obtaining consent, and make it clear to participants that their consent may be withdrawn and they may elect to discontinue the activities at any time. Assuming that the investigator handles consent appropriately, both in planning and executing the experiment, the problem should be lessened, although perhaps not completely eliminated.

In addition to the problems related to participants who *receive* an experimental treatment, there are also difficult ethical issues involving those who are in a “placebo” or control group. Such would be the case where one group of students in a high school receives a newly developed science program (experimental treatment) that appears to be very effective, and a second group receives the science program that was used for many years with limited effectiveness (control group). One ethical perspective is that the researcher has the responsibility to provide the new treatment to all participants. However, some researchers may have a very different view. This opposing perspective is often called the *natural state argument*. This argument contends that the untreated participants are not being denied a benefit they already have; they are merely being left in their natural state. In the example above, the high school students in the control group continued to receive the science program that had been used in the school for many years.

Clearly, neither of the above positions is acceptable for all research (Field & Behrman, 2004; Gross, 2005; Roberts et al., 2005). There remains a critical need to conduct a scientifically sound test. One approach to this dilemma represents a compromise that attempts to meet the goals of research and also the ethical need for providing benefit to all participants. In our example above, it may be possible to first conduct the study as initially planned—with a treatment group and a placebo comparison group. Then, after the investigation is complete and the data collected, researchers could provide the new science program to the participants in the comparison group if in fact it was a more effective program. In this way, treatment is not withheld from anyone in the study, and the data are not contaminated. Although this is a reasonable compromise, ethical issues remain. Some would contend that the delay in treatment is still harmful to the placebo group. This may be true if the duration of the study is extended over time, but if not, such an argument loses its potency. Another issue may be expense: if the treatment is quite expensive, the researcher may have difficulty funding treatment for the second group. Although this may be a problem, it is not a very compelling argument. To remain ethical, the researcher should plan a budget to allow for treatment of the comparison participants. None of this discussion has great significance for interventions or treatments of unknown effectiveness, but becomes more relevant as evidence of promise accumulates for any given treatment.

Ethical issues also exist in conducting nonexperimental research where an investigator does not impose or manipulate conditions. Although ethics in nonexperimental designs (e.g., survey research) are often less complex or harmful than experimental studies, it is important for investigators to be aware of basic principles for protecting the participants, including “full disclosure and consent.” For example, in survey research, each respondent should be fully informed as to the purpose of the study, participant demographics (e.g., teachers, college students, the general public), confidentiality of responses, how the results are intended to be used, and who will have access to the data. Bacon and Olsen (2005) also indicate that survey researchers have the ethical responsibility of “not wasting” a respondent’s time and to only collect data that has utility (real use). Schenk and Williamson (2005), in discussing the ethical responsibilities involved in conducting nonexperimental research on children, suggest “if the information gathering activity will not directly benefit the children involved or their community, do not proceed” (p. 17).

Ethics and Qualitative Research

Qualitative research involves data that are recorded in narrative descriptions, not numbers. Researchers use qualitative methods to observe and describe conditions rather than control them. A basic ethical principle for qualitative researchers is this: *Do not tamper with the natural setting under study.*

Participant and nonparticipant observations are integral components of qualitative research and are used widely in the fields of education, sociology, and anthropology. Each presents unique ethical issues in regard to consent, privacy, and deception (Brinkmann & Kvale, 2005; Haverkamp, 2005).

Informed consent is necessary but can be problematic when relying on observations in a qualitative research study. Although potential harm from treatment is not generally a threat, there are other ethical concerns. Clearly, there is a substantial threat to privacy. A revelation of observed conversations and behaviors could cause harm to participants in their families, communities, or place of employment. In addition, the actual research participants, who have given consent, may not be the only people observed. In natural settings, people move in and out of interactions and settings for many reasons (Creswell, 2005; Denzin & Lincoln, 2005). For example, a researcher has permission to study formal and informal counselor–student interactions in a middle school setting. Informed consent has been obtained from the counselors, students, and parents of the students who are in formal counseling. However, the researcher plans to follow the counselors while they work during the day and record informal interactions among students throughout the school and between the counselors and the students. How is consent obtained from all the students and their parents? Is consent necessary? The accepted rule of thumb for such nonparticipant observation research is that consent is not necessary when (a) access to the setting is approved by the agency or institution, (b) participants who are actively involved have given informed consent, and (c) other observed behavior is considered public and observable by anyone present in the setting. In other words, if other students or teachers in the school overhear the conversations that the researcher is observing in a public place, they do not require additional consent.

This rule of thumb does not always guarantee, however, that difficulties with consent will not occur. The definition of “public” is open to debate. For example, a doctoral student at a leading university was recently conducting nonparticipant observational research for his dissertation. The student obtained consent to observe a YWCA board meeting from the president and members of the board. However, an influential community member speaking at the meeting refused to participate when told he was under observation as part of a research study. The entire board meeting came to a halt.

Participant Observation

Participant observation also presents unique ethical challenges. The participant observer often lives, eats, and sleeps on a daily basis with those under observation. In such a study, a broad range of details is observed and recorded regarding participants’ cultural mores, interaction patterns, social structures, and daily behaviors. The participant observer may directly probe into many facets of the lifestyle of the participants—public, private, and often sensitive. With such a pervasive scope of observation, an invasion of privacy is inevitable. This makes informed consent absolutely necessary.

The nature of participant observation research raises some serious difficulties with regard to consent. Specifically, this research methodology often requires that only the core group of participants know the researcher is not just another member of the group. Is it adequate to obtain consent only from the group leader (e.g., the tribal leader, the school principal, the teacher, the fraternity president)? Another problem in observation studies involves the *effects* of obtaining consent *on the behavior of those being studied*. An important strength of observation research is the study of participant routine behaviors within the natural environment. By obtaining consent, a researcher may alter this natural behavior. Many researchers seek to mitigate these effects by asking an inside informer to watch for changes in the

customary behavior and interactions of the group and warn the researcher if routines are altered.

Another potential difficulty with observation methods—particularly participant observation—arises as those under observation become increasingly comfortable with the researcher’s presence. By virtue of the observer’s role, the participants may forget that they are being studied. Some question exists whether this means they are no longer consenting because their consent is no longer “effective” in the pure sense.

Privacy Issues

Invasion of privacy represents a substantial risk in qualitative research because of the sensitive data often collected and analyzed (Baez, 2002; Nagy, 2005b). One of the traditional methods of circumventing privacy problems—*anonymity*—is a way to protect individual participants. In reporting the results of observation studies, fictitious names are often used to disguise the identity of individuals, groups, agencies, and locations. Although this technique is adequate in most circumstances, it sometimes fails. Some of the published information may involve behavior that could be considered embarrassing and potentially damaging to the participants, and the people involved may know each other well enough to establish who was being discussed.

Finally, *anonymity* does not solve privacy questions related to sacred data in cultural studies. Revealing sacred information related to ceremonies, taboos, or stories, while central to a research process, may never be appropriate. Tony Hillerman described this dilemma aptly in his novel *Talking God* when he said, “The museums of the world are filled with the gods of conquered peoples.”

Degree of Deception

The aura of deception may also surround ethical questions in qualitative studies. In one sense, the participant observer is by definition a “deceiver.” Even with consent, the participant observer affects the behavior of others in the study by his or her behavior. This is a serious problem that cannot be ignored by researchers using this approach. It also raises complex questions about potential harm. In extreme forms of participant observation, the observer might encourage others to engage in behaviors that might be harmful, illegal, or both. Qualitative researchers must continually ask themselves (and the appropriate review committees), “What harm may be incurred by the deception involved in my study?” (See Box 3.2.)

MONITORING ETHICS IN RESEARCH: INSTITUTIONAL REVIEW BOARDS

While the investigator is ultimately responsible to ensure that no ethical violations occur in a given study, the federal government has also established an additional assurance in the conduct of research—the **institutional review board (IRB)**. IRBs are composed of five or more members who are representatives of the institution (e.g., faculty members or administrators) as well as laypeople who have no association with the institution. The IRB is charged with reviewing the purpose of the research and the proposed methodology as it relates to potential risk or benefits to the participants involved. This review body is also directly concerned with issues of informed consent and a subject’s right to privacy. As described by the American Psychological Association (2002), the researcher must receive institutional approval (through an IRB) where the focus is on protecting human subjects.

BOX 3.2 Ethics of Undercover Research

Ethnographies, or detailed descriptions of a culture, require anthropologists to immerse themselves in the day-to-day lives of their subjects. But what if immersion involves a researcher not revealing his or her identity?

This question was important for Rebekah Nathan, who determined that she could not have made a meaningful study of students unless she blended in with them—and did not fully explain who she was. That, the professor writes in *My Freshman Year*, required “a delicate balancing act between truth and fiction.” (Rebekah Nathan is a pseudonym, and her university is not identified in her book.)

Ms. Nathan says she followed the ethical protocol of “informed consent” when conducting formal interviews with students. She identified herself as a researcher (though not as a professor at the university), explained her study, and obtained written permission to publish the subjects’ words.

However, in day-to-day interactions, Ms. Nathan let students assume she was one of them.

Lois Weis, a professor of sociology of education at the State University of New York at Buffalo who read the book, does not think Ms. Nathan compromised her ethical obligations as a researcher. “It seems to me that she made wise decisions,” says Ms. Weis, who has conducted numerous ethnographical studies and is the coauthor of *Speed Bumps: A Student-Friendly Guide to Qualitative Research* (Teachers College Press, 2000).

“Certainly in this kind of research there can be a lot of misunderstandings, miscommunications, and certainly research subjects could end up feeling hurt or used,” Ms. Weis says. “But that could happen whether they knew that she was a researcher or not.”

Margaret A. Eisenhart, a professor of educational anthropology and research methodology at the University of Colorado at Boulder, who also read *My Freshman Year*, disagreed with Ms. Nathan’s undercover approach.

Protecting the Subject

“My job as an ethnographer is to protect the people I’m working with in the same way I’d want to be protected if I were in the subject’s shoes,” says Ms. Eisenhart. “It is just simply unethical to do something which is primarily for your own benefit, to advance your own career.”

She rejects the idea that Ms. Nathan would have jeopardized her research if she had been up front with her subjects. Ms. Eisenhart says that in one of her own studies she was able to gain the trust of students and accompany them on social excursions, even dates, without concealing her identity. That research was the source for the book *Educated in Romance: Women, Achievement, and College Culture* (University of Chicago Press, 1990), which she wrote with Dorothy C. Holland.

“I don’t think it was hard to get people to open up once they relaxed about who we were,” Ms. Eisenhart says of their study.

The American Anthropological Association’s code of ethics does not explicitly advise against undercover research, though it once did. Some anthropologists believe the practice is unethical in all cases, while others say it depends on the context, says Stacy Lathrop, staff liaison to the association’s ethics committee.

“We all play multiple roles in our life, and you have to navigate between those,” Ms. Lathrop says. “Participant observation is like life, dynamic and changing. As in human relationships, sometimes you do keep secrets.”

SOURCE: From Hoover, E. (2005, July 29). “The ethics of undercover research,” *The Chronicle of Higher Education*, A37. Reprinted with permission from *The Chronicle of Higher Education*.

Psychologists [must] inform participants about (1) the purpose of the research, expected duration, and procedures; (2) their right to decline to participate and to withdraw from the research once participation has begun; (3) the foreseeable consequences of declining or withdrawing; (4) reasonably foreseeable factors that may be expected to influence their willingness to participate such as potential risks, discomfort, or adverse effects; (5) any prospective research benefits; (6) limits of confidentiality; (7) incentives for participation; and (8) whom to contact for questions about the research and research participants’ rights. They provide opportunity for the prospective participants to ask questions and receive answers. (p. 11)

Many researchers are supportive of IRBs and view them as a protection for not only human participants but researchers as well. The IRB can assist the researcher by identifying potential pitfalls that could be overlooked by an individual investigator, thus protecting reputations and avoiding litigation. Other researchers see the IRB as a governmental intrusion into the research process. They view them as overly cumbersome, unnecessary, and dictatorial. From the latter viewpoint, IRBs were established to deal with the very few who violate ethical standards, while punishing the many ethical researchers with unwieldy governmental requirements (see, for example, Kleiman, 2003; Rae & Sullivan, 2003).

Federal Requirements for IRBs

Regardless of the position taken on the need for IRBs, they are a federal requirement. Institutions receiving federal funding must establish committees to approve *all* human and animal research. This includes student research for theses and dissertations, as well as individual faculty endeavors. Investigators must receive IRB approval on any research involving human or animal participants whether or not the study is receiving federal dollars. An institution that fails to meet IRB requirements may put its federal funding in jeopardy. Collegial review bodies such as IRBs do not negate the individual researcher's responsibility for ethical decision making. The final ethical responsibility rests with the investigator.

ETHICS AND PROFESSIONALISM

Ethics and professionalism could easily consume an entire volume, but will only receive a cursory examination in this chapter. Our focus is on three issues: (1) integrity during the execution of the study, (2) integrity related to publishing, and (3) sanctions for breaches of integrity. Hopefully, these topics will provide a background and sensitivity that will prompt further thought and inquiry by the beginning researcher as questions arise.

Integrity During Execution of the Study

Any breach of integrity during the execution of a research study, whether it be unintentional errors or outright falsification of the data, seriously weakens or even invalidates the investigation. One of the basic purposes of science is the acquisition of objective and accurate data about real phenomena. Reality is fluid, situational, and certainly variable depending on one's perspective. However, somewhere underlying the conduct of science, there is a philosophical assumption that some "truths" can be determined. This places a very important responsibility on scientists to undertake their efforts in a totally honest fashion. This is not a statement that reflects a value judgment or a moral stand. It simply emphasizes a fundamental principle on which scientific investigation is based.

This chapter has addressed the importance of **integrity** in research and focused thus far on the execution of the study. The question raised in this context relates to why breaches of integrity occur. Although a variety of influences result in these problems, none makes such acts justifiable. However, their discussion assists our understanding and promotes preventive action.

Factors influencing breaches of integrity involve some rather powerful social pressures, particularly among beginning researchers. One of the most powerful factors is the pressure to publish, often characterized as a "publish or perish" mentality. Researchers are constantly pressured to "get into print," which is always particularly acute early in a career (Parasuraman, 2003; Weerasekera, 2004). This pressure may

place such a stress on investigators that they plagiarize the work of others, and alter or fabricate data. To protect against such acts, investigators must be overly diligent in their efforts to be objective.

Plagiarism involves misrepresenting someone else's work as your own and is clearly unethical. Plagiarism may be defined as the following:

The intentional unacknowledged use or incorporation of any other person's work in, or as a basis for, one's own work offered for academic consideration or credit or for public presentation. It includes, but is not limited to, representing as one's own, without attribution, any other individual's words, phrasing, ideas, sequence of ideas, information or any other mode or content of expression. (University of Utah, 2005)

Data alteration may be described in terms of *trimming* and *cooking*. Trimming occurs when the researcher smooths irregularities in the data to achieve a better fit between actual and expected results. Cooking occurs when the researcher retains or reports only those findings that fit the hypothesis. Both variations, while more subtle than complete fabrication, still represent dishonest science.

Ethical problems may also arise when strong pressure (often implicit) leads to inaccurate data collection. For example, such pressure may occur when a research assistant believes that significant results *must* be obtained and either consciously or unconsciously alters the data. Other circumstances may have the same net outcome. The data collection process is often laborious, boring, or even extremely difficult. This has led to incidents in which research assistants actually record fictitious data rather than conscientiously observe participants (sometimes known as *dry labbing*).

Research assistants and beginning researchers are not the only scientists vulnerable to breaches of integrity. In fact, some very prominent individuals, with widely known reputations, have been accused of conducting unethical research. One example concerns the work of Sir Cyril Burt, a noted British psychologist. Burt is a particularly difficult case since the allegations of scientific misconduct against him were made after his death, making it impossible for him to respond. The controversy is further complicated by two factors: (1) there is no question that Burt was a very well-known scientist—he was knighted in 1946 in recognition of the importance of his work; and (2) the topic of his investigations was, and remains, very controversial—the heritability of intelligence. The allegations include (1) estimating certain levels of intelligence (based on estimates by parents of certain twins) but later reporting such estimates as solid data, (2) listing people as coauthors on research reports who may never have existed, and (3) producing data that represented answers supporting his theoretical beliefs that are unusually “precise” fits with predictions (some say impossible). These points have been countered by supporters of his work on the basis that while the inconsistencies may represent a degree of carelessness, basically the errors are trivial, do not seriously undermine the strength of the heritability of intelligence position, and certainly do not warrant the accusations of fraud. The arguments have been intense on both sides, often representing varying perspectives on the intelligence issue as much as the problems involved in the ethics of science. However, one cannot ignore the difficulties and suspicions generated in relation to the conduct of research (Joynson, 2003). In one sense, the scientific endeavor is as much on trial as the work of Burt, which illustrates very well the fundamental problems involved with breaches of integrity (confirmed or alleged). It should be noted that this is not the only example—other fields of science also have their unfortunate incidents.

Every researcher must take precautions against breaches of integrity related to the execution of research. However, it is impossible to have *every* data collection effort fully supervised or observed by more than one researcher. Ethical integrity in science, as in many other fields, is mainly an individual undertaking. Hopefully, one

precaution that may have an important influence is a more open discussion of the resulting problems and the potential outcomes.

Integrity Related to Publishing

Publishing is an integral part of the overall research process. Chapter 1 characterized the research process in a closed-loop fashion: An investigation is undertaken to answer a question of presumed importance. The process is not completed until the results are interpreted in relation to the question that closes the loop. The work of a scientist is public, and publishing is the means by which it is made public. For the most part, a published research report describes the closed loop and takes the form of an article in a professional journal. The research question is presented, accompanied by the rationale concerning why the question should be studied, a description of the execution, the results, and an interpretation of those results related to the question. Considerable detail (e.g., participants, procedures, analysis) is included in such a report, which basically makes the researcher's work open for public scrutiny by the scientific community. This public scrutiny helps to make science objective and is why publishing is an important part of the research process.

Because publishing is an important part of research, it is also an important factor in the career of a scientist. Scholars use publications as one means of determining the capability and performance of a researcher. Successful publication of research in a respected journal or book provides at least some evidence that the work has withstood review by the scientific community. Such evidence clearly enhances the researcher's employability, rank, and salary. In fact, some universities will terminate professors if they have not published a reasonable amount during the first few years of their employment (often the first 5 to 7 years). These realities of academic life place pressure on researchers to publish. Although the pressure is not undue (5 to 7 years is plenty of time), some tend to exaggerate the intensity of this pressure and ethical problems may result, as described below.

Plagiarism and Maintaining Integrity

As per our earlier discussion, ethical problems that may arise include plagiarism and maintaining integrity during the execution of a study. In regard to integrity, there may be a temptation to report the results of a study somewhat differently from what the data collected would indicate. This may be a situation in which significant differences are reported where the data did not actually show statistically significant differences. Such incidents have ranged from circumstances in which "it was close" and the data were changed slightly, all the way to "dry labbed" results. In qualitative research, the scholar may fail to convey quotations or observations that contradict or raise questions about his or her conclusions (Creswell, 2005; Denzin & Lincoln, 2005).

Simultaneous Submission

Another ethical concern related to publishing involves multiple publications of the same article. For example, ethical violations occur if you conduct a survey, write an article reporting the study, and then publish the same article in two different professional journals at the same time. In fact, the rule of thumb that is usually employed does not even permit *submitting* the same article to two different journals at once. This view would hold that you submit the article to one journal and, if it is rejected, you are then free to submit it for review by another journal. Many journals include this requirement in their editorial policies.

The multiple publication issue noted above is much different than an article (already published) that is *reprinted* in another journal or a book of readings. In this latter situation, the journal or publisher desiring to reprint your article must request permission from the first journal before the article can be reprinted. (A credit line

must also be listed, clearly indicating that the article is reprinted from another publication.) In addition, the author does not claim such a reprinted piece as a separate and new publication—it is merely noted as having been reprinted.

Ethical Issues in Authorship

Authorship also presents several serious ethical considerations. This is an area in which graduate students and beginning researchers may be particularly vulnerable. One of the first questions relates to who should be listed as authors. *Any individual making a major contribution to the project should be listed as an author.* Obviously, the phrase “major contribution” is open to different interpretations. In this context, it is being used to reflect a contribution involving the conceptualization, design, data collection and analysis, and writing of the manuscript. Several combinations of “and/or” can be inserted between the above activities to determine whether or not authorship is warranted. Once again, this is an area in which one’s best ethical judgment must prevail. The issue is mentioned because it seems that integrity occasionally wears thin when it comes time to list authors. Unfortunately, some graduate students have been taken advantage of by unscrupulous professors who only give them a footnote credit line, if that. (A credit line may be appropriate for minor contributions; however, it is *not* appropriate for substantial work involving conceptual and writing efforts.)

A publication may have multiple authors. This raises a question regarding the order of authorship. Who is to be senior author (listed first) and who will be junior author(s) (those listed second, third, and so on)? The order of authorship should be determined in relation to the level of contribution. The person making the greatest contribution should be senior author and the others listed in order of their relative efforts. If the contribution is relatively equal, order should be determined by mutual agreement, a flip of the coin, or some other method that is acceptable to those involved. If order of authorship does not denote level of contribution, the authors must acknowledge this and describe how the order was determined in a footnote at the beginning of a publication (e.g., “authors listed alphabetically”). It is important not to regard author order as a trivial matter—after all, with three authors the citation in text is often “Senior et al., 2006.” Would a researcher involved really want to be *et* or *al* if he or she did much of the work? Unfortunately, not everyone adheres to fair and ethical principles when determining the order of authors. The main caution is to be aware that such breaches of integrity do occur. Intellectual property should be discussed openly and frankly regarding your rights as an author (and be certain not to take advantage of someone else) (Nagy, 2005c).

Sanctions for Breaches of Integrity

Some sanctions for unethical conduct are self-evident. Certainly, a breach of ethics that is made public is personally embarrassing and causes professional disgrace. It may cause the loss of a job and result in the inability to obtain other employment in the research community.

Most scientists belong to professional organizations, such as the American Psychological Association, the American Educational Research Association, the American Sociological Association, or some other disciplinary organization. Many of these organizations have formal codes of ethics to guide member activities. They may expel a member for unethical conduct, which is essentially an expulsion from the profession. Sanctions can be very harsh for the person who has been unethical. Each time a breach of ethics occurs, the entire field is disgraced to some degree. Although inconvenience may result, it is important to remember that ethical principles are not only in harmony with science but also represent the basic fiber from which science emerges.

Chapter Summary

- ✦ Every researcher has the responsibility to protect participants in a research study including obtaining consent, ensuring protection from harm, and protecting privacy.
- ✦ Informed consent ensures that each participant has a complete understanding of the purpose and methods used in the study, the risks involved, and the demands of the study.
- ✦ Legally, informed consent involves three elements: capacity, information, and voluntariness. Capacity is a person's ability to acquire and retain knowledge. Information must be presented so it can be completely and fully understood by each participant. Voluntariness ensures each participant's ability to exercise the power of free choice without the intervention of force, fraud, deceit, duress, or other forms of coercion.
- ✦ Consent to participate may be given by an adult, a parent, guardian, or other agent legally authorized to act on a person's behalf. There are a number of factors that determine when consent is required. The rule of thumb regarding risk factors is "when in doubt, ask for permission."
- ✦ The most basic concern in all research is that no individual is harmed by serving as a participant in a study. Particular care should be taken with participants who are characterized as vulnerable to harm, such as people with disabilities, children, or older individuals.
- ✦ There are several factors to consider in protecting the privacy of participants, including the sensitivity of the data in view of the individual or group being studied, the setting in which the research takes place, and how public the information is that is collected and disseminated.
- ✦ Research deception involves the intentional misrepresentation of facts related to the purpose, nature, or consequences of a study. The use of deception must be carefully considered and justified based on significant prospective, scientific, educational, or applied value (American Psychological Association, 2002).
- ✦ Ethical issues in quantitative research focus on protecting individuals who receive an intervention. Qualitative researchers focus on the importance of not tampering with the natural setting under study.
- ✦ Institutional review boards (IRBs) provide assurance that no ethical violations occur in any given study. An IRB is charged with reviewing the purpose of the research and the proposed methodology as it relates to potential risk or benefits to the participants involved.
- ✦ Any breach of integrity during the development, execution, or dissemination of results, whether it be intentional or unintentional, will seriously weaken or even invalidate a research study.

Key Terms

Capacity. An element of consent referring to a person's ability to acquire and retain knowledge.

Deception. Research deception involves an intentional misrepresentation of facts related to the purpose, nature, or consequences of an investigation. In this context, deception may refer to either an *omission* or a *commission* on the part of the researcher in terms of interactions with participants.

Ethics. Ethics in research generally means an investigator has a moral obligation to protect the participants from harm, unnecessary invasion of their privacy, and the promotion of their well-being.

Harm. In the context of research ethics, harm may be broadly defined to include extreme physical pain or death, but also involves such factors as psychological stress, personal embarrassment or humiliation, or myriad influences that may adversely affect the participants in a significant way. Protecting participants from harm is a key consideration in any research undertaken.

Information. An element of consent requiring that information pertaining to a study must be presented so it can be completely and fully understood by each participant.

Informed consent. Informed consent ensures that each participant has a complete understanding of the purpose and methods used in the study, the risks involved, and the demands of the study.

Institutional review boards. Institutional review boards (IRBs) are committees of individuals set up within universities and other organizations to provide assurance that no ethical violations occur in any given study. An IRB is charged with reviewing the purpose of the research and the proposed methodology as it relates to potential risks or benefits to the participants involved.

Integrity. Relates to the honesty of an investigator and how honestly he or she undertakes an investigation. Any breach of integrity during the execution of a research study, whether it be unintentional errors or outright falsification of the data, seriously weakens or even invalidates the investigation.

Privacy. The right of an individual to control distribution of personal information. As a rule of thumb, researchers should invade the privacy of participants as minimally as possible.

Voluntariness. Voluntariness in consent ensures each participant's ability to exercise the power of free choice without the intervention of force, fraud, deceit, duress, or other forms of coercion.

Student Study Site

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Simulation Feedback



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Simulation Feedback 3.1

There are concerns in this simulation regarding the comparison group—they are receiving a placebo rather than the actual treatment. Is this deception? It probably is, but the investigation could be seriously jeopardized if they are specifically and fully informed that they are not receiving the treatment. This may present a rather difficult dilemma, and whether or not you are ethical depends on how procedures are handled. Perhaps you can treat the comparison group after the experiment is completed. Another question, however, must be asked regarding potential harm by withholding treatment from this group for the duration of the experiment and then treating them later. Does this create a problem? You can only make this decision after considering all the facts and issues. Review the relevant portions of the text, think carefully, and by all means obtain approval from your human subjects review committee.