CHAPTER 1

What Do We Know About Cheating in the Classroom?

This chapter provides some of the "nuts and bolts" necessary to begin a consideration of **cheating.** To start, we must admit that it is not always clear what constitutes cheating. Thus, a first step is to develop a workable definition of that term. Next, although generalizing is to some extent both necessary and dangerous, we look at what the evidence suggests are the characteristics of students who cheat. We will be answering the questions of who tends to engage in cheating, why they do it, and how often cheating occurs. Finally, this chapter addresses the issue of perceptions of cheating—on the part of both students and their teachers—and investigates whether and to what degree those perceptions differ.

What Is Cheating?

Almost from birth, it seems that every person has some intuitive sense of what constitutes cheating. When I and my younger brother, Randy, were ages 6 and 4, respectively, I recall his protest when our mother gave me the candy bar and a knife to cut it into two pieces for us to share. It was apparently obvious to my brother that that system had the potential for unfair results; he was astute enough, however, to suggest

that the person cutting should not get first choice of which "half" of the candy he wanted. As an adult observer of the 2002 Winter Olympics, I felt a sense of unfairness when I learned of the scandal involving ice-skating judges who rated competitors based not on their performance but on political deals that had been struck.

Almost certainly, readers of this book have different backgrounds and perceptions than those I have just related about myself. As teachers and administrators, we surely bring a diversity of expectations, values, and experiences to our work in the education profession. Nonetheless, although everyone's "fairness-meter" is probably calibrated a little differently, there are instances of academic dishonesty that, to one degree or another, cause our natural sense of injustice to be piqued.

The following paragraphs present some typical scenarios that could prompt concerns about cheating. As you read the following situations, take a moment to consider whether you believe each situation should be labeled "cheating" or not. Try using the following code: Place a plus sign (+) by those situations that you believe clearly represent cheating; use a minus sign (–) for those you believe do not constitute cheating; and use a wavy line (~) for situations that could go either way or for which you would want additional information.

A student spends several hours searching the Internet for information on "Crustacean Overcrowding: The Growing Threat of Planktonic Hyperreproduction in Freshwater Lakes." Finding a ready-made essay on the topic, the student downloads and submits the paper for her biology term paper.

A third-grade student's art-fair project is apparently more the product of his parents' efforts than of the student's.

A teacher who is proctoring 250 high school juniors taking the SAT on a Saturday morning in the school cafeteria notices that the student who has signed in as "Mark Stein" is not the Mark Stein she knows from her British Literature class.

For a high-stakes high school graduation test, two friends arrange to sit next to each other and, during the test, one of the students passes a slip of paper to his friend.

A student obtains a perfect score on a French quiz because she had advance access to an answer key for the quiz taken from the teacher's desk drawer.

A student turns in a writing assignment for her Current Events class that reads almost word-for-word identically to an article in a recent issue of *Reader's Digest*.

A teacher who is administering the *Iowa Test of Basic Skills* to her second-grade class gives several students who have been working hard a few extra minutes to finish the Language Arts test.

A mother is observed silently mouthing answers to her young child who is participating in a kindergarten screening event at the local elementary school.

A student is found to have **"razored"** out several important pages from a library resource, preventing other students from gaining access to the resource for a term project.

Before submitting the bubble sheets following administration of the state-mandated math test, a fourth-grade teacher notices that six students have made careless mistakes, so the teacher bubbles in the correct answers for the students.

Our internal fairness-meters may vary, as will the particular circumstances involved in a potential occurrence of cheating. Some of the preceding scenarios may have seemed to be egregious examples of cheating. Others may have seemed less serious. Others may appear to be perfectly appropriate. For still others, we may want additional information about the situation before being willing to categorize the event as improper or not. The diversity of these situations and our personal responses to them illustrates the complicated nature of the topic of cheating and the need to develop a concrete definition. The U.S. Supreme Court faced a similar situation when they struggled to develop a definition of obscenity. Ultimately, they expressed their exasperation over the task. According to Justice Potter Stewart, "I could never succeed in [defining it] intelligibly," but "I know it when I see it" (*Jacobellis v. Ohio*, 1964, p. 197).

However, the diversity of circumstances and of our values and perceptions also highlight the need for some workable, general definition of cheating. Because there are so many varieties of cheating, a highly specific definition won't suffice, and a more broadly applicable definition is desirable. Such a definition is both helpful and necessary for understanding cheating, for judging whether any particular behavior is improper, and for communicating our expectations about appropriate and inappropriate behavior to students, parents, and fellow educators. The following is a workable definition of cheating that should be applicable in most classroom contexts:

Cheating: Any action that violates the established rules governing the administration of a test or the completion of an assignment;

> *any behavior that gives one student an unfair advantage over other students on a test or assignment; or any action that decreases the accuracy of the intended inferences arising from a student's performance on a test or assignment.*

The preceding definition has at least three key salient elements. First, cheating violates some understanding of what constitute appropriate activities for completing a specific academic activity. Such an understanding is one that can reasonably be presumed to be held in common by all members of a school community. Second, cheating violates a sense of fundamental fairness in that it affords one or more students an unfair advantage in learning, grades, or opportunities that other students do not have. In this sense, cheating is similar to what is sometimes called *test bias*—a situation in which, on a given test, some students perform better than others of the same ability, level of content mastery, and so on, due to factors that are unrelated to what the test is attempting to measure. Third, cheating confounds the meaning that can be made from the student's performance on a test or assignment. Typically, we would like for the summary indicator of the quality of a student's work (i.e., the student's test score, term paper grade, rating for performing a skill, etc.) to clearly communicate something about that work. In this sense, cheating can be thought of as something that introduces "noise" or "pollution" into the communication process, resulting in a degradation of our ability to make, understand, communicate, or use that indicator.

Despite these refinements, the foregoing definition of cheating still requires some clarification. For example, what is meant by "the established rules"? Must the rules be explicitly spelled out for each test or assignment, or are there implicit rules that teachers and students understand apply to tests or assignments and that are assumed to be acquired in a common educational culture? And what is meant by the "intended inferences"? These are important issues and they are addressed in detail in Chapters 5 and 2, respectively.

For the present time, however, the preceding definition should provide enough information upon which to build a common conception of that term as we now turn our attention toward greater understanding of the characteristics of persons who cheat.

Who Cheats . . . and Why?

Answering the question "Who cheats?" is fairly easy. As we will see in the next chapter, cheating is ubiquitous at all levels of schooling. Nearly all research on the topic of cheating (that has used a definition

of cheating similar to the one given in the previous section) reveals that nearly everyone has cheated at one time or another. It is possible, however, to see some distinctions when looking at patterns of cheating. For example, differences exist between K-12 students and college students. There are differences depending on the type of cheating (e.g., copying on a test vs. plagiarizing on an assignment). Also, the research indicates that some student characteristics are more strongly associated with cheating than others. Before beginning a review of some of these aspects of cheating, however, we will digress briefly to examine how cheating is investigated.

How Do We Know What We Know About Cheating?

Most commonly, when researchers want to know how often or in what ways students cheat, they simply ask. Major benefits of survey approaches include that they are usually less susceptible to ethical concerns (e.g., they do not involve deception); they are direct; they can be used on a large scale; and they are adaptable to various ages, grade levels, and subject areas. There are, of course, problems with the survey approach; namely, simple self-report surveys are frequently the most susceptible to inaccurate results. It is well-known that respondents are not always truthful when presented with surveys that ask them questions regarding sensitive, illegal, or socially unacceptable behaviors.

Cheating appears to be an exception to that generalization, however. With percentages of students who indicate that they have cheated nearing 90% in some surveys, it would appear that only a small proportion of respondents were reticent about admitting to the behavior. Of course, nearly all of the research on cheating has also provided respondents with the safeguards of anonymity and confidentiality, which likely contribute to the routinely large percentages of students who admit to cheating. At least one other element might also help explain the findings: As we will see later, cheating may be losing some of its stigma, and may be decreasingly viewed by respondents as sensitive, illegal, or socially unacceptable.

Although surveys that directly ask students if they have cheated, how often, and in what ways are common, other methods have been used, though less frequently. Some of the first studies of cheating were conducted by researchers who returned assignments to students in which a purposeful calculation error had been made, resulting in the student's being awarded a higher score than was actually achieved. Using this strategy, researchers defined cheating as occurring whenever a student failed to report the error. Though this research design

was common in early studies of cheating, it has virtually disappeared, perhaps because it is unclear whether that behavior should even be considered to be cheating.

Another early—though remarkably sophisticated—method of estimating the incidence of cheating was described by Zastrow (1970). Working in a collegiate setting, Zastrow administered three two-page quizzes to students over the course of a semester. The first page of the quiz contained true/false questions, with a designated space for students to record their answers. All of the true/false questions were taken directly from the assigned textbook for the course. The second page contained an essay question. After completing the quizzes in class, students were instructed to separate the two pages. The essay responses on the second page were turned in for scoring by the instructor, but students were directed to take the first page home for self-scoring of the true/false questions.

Unbeknownst to the students, special materials were used to construct the pages of the two-page test. The back of the first page was coated with a unique substance that left an imperceptible record of the answers students marked for the true/false questions on the page they turned in containing the essay response. When the essay page was exposed to a certain chemical, the imperceptible marks became very visible indications of students' original answers to the true/false questions. Using this approach, Zastrow was able to estimate the incidence of cheating by comparing the scores based on the students' original responses to the true/false questions with the scores the students assigned following self-scoring.

More recently, some researchers have estimated the incidence of cheating by administering a "test" to students while a fake answer key is left in plain view and the testing room is left unattended. The extent of cheating is investigated by looking for instances of agreement between students' answers and those contained in the phony answer key.

Another common strategy for investigating cheating involves somewhat more elaborate deception. A test is administered, collected, and scored without making any marks on the students' answer sheets. The students' scores are recorded by the researchers. A teacher or other person who is knowledgeable about the research study returns the tests to the students and informs them that she did not have enough time to grade the tests, and that the students will need to score their own tests. When researchers use this strategy, cheating is deemed to have occurred whenever the known (i.e., previously recorded) scores for students differ from the scores students award themselves.

It should be pointed out that the preceding two strategies for investigating cheating are likely to yield different estimates of the incidence of cheating when compared with the data yielded by surveys. When a

student makes use of an "unintentionally" displayed answer key or purposefully misgrades his or her own paper, that is a different form of cheating than copying or plagiarism.

A final approach to investigating the incidence of cheating relies on statistical methods. Basically, all statistical methods for investigating cheating involve searching for improbable similarities in two students' responses. The extent of similarity of responses is quantified and expressed as a probability that the similar answers were produced independently—that is, without cheating. A clear advantage of statistical methods for investigating cheating is that, in contrast to surveys, statistical methods do not rely on students' willingness to admit to cheating. Drawbacks to the use of statistical methods include the inherent inaccuracy in any probabilistic approach, and the fact that statistical methods can be used to detect only copying on tests consisting of select-format type items. For the interested reader, a considerably more detailed presentation of statistical methods can be found in Cizek (2001).

In conclusion, many strategies have been developed and used to study cheating. Surveys—that is, simply asking people about their cheating behavior—are by far the most prevalent approach. Fortunately, in terms of accuracy, survey techniques have a fairly good track record when it comes to studying cheating. One study on this issue is illustrative. Erickson and Smith (1974) gave a test to 118 college students under conditions that provided an easy opportunity to cheat, but also for researchers to determine who had cheated. Erickson and Smith found that 43% of the students took advantage of the opportunity to cheat. Going a step further, Erickson and Smith then surveyed the students and asked whether or not they had cheated. They found that students who cheated tended to indicate so in response to the survey. (Not surprisingly, they also found that no student who did not cheat said that he or she did.) Similar studies have tended to reach the same conclusion. Thus, we can have some confidence that self-reported cheating via survey techniques yields accurate estimates of how often the behavior actually occurs.

Variables Related to Cheating

Most of the research on cheating has focused on describing the characteristics of students who cheat. Most of that research has investigated cheating at the college level and many good reviews of the research are available (see, for example, Whitley, 1998). Comparatively less research has been conducted in elementary and secondary school contexts, but enough is known about cheating across the grades to yield some confident conclusions about the topic.

In this section, some of that evidence will be reviewed. However, an important caveat is in order before continuing. Nearly all of the information we have on the characteristics of students who cheat is what is called *correlational* evidence. A good understanding of how to interpret correlational evidence is essential to making appropriate conclusions based on the research.

Correlation is a statistical technique used to determine the strength of any relationship that might exist between two things (variables). Correlations can range from –1.0 to +1.0. Negative values indicate that high values on one of the variables tend to be associated with low values on the other variable. For example, suppose we had data for a large group of high school chemistry students on two variables: Days Absent and Final Grade in Chemistry. If we were to calculate a correlation, it is likely that there would be a strong, negative (i.e., close to –1.0) relationship between these variables. That is, students with *higher* days absent would tend to have *lower* grades and vice versa.

On the other hand, suppose we collected simple measurements on the same students on two other variables: the students' heights and their shoe sizes. If we calculated a correlation, it is likely that there would be a strong, positive (i.e., close to +1.0) relationship between these variables. That is, *taller* students would tend to have *larger* shoe sizes, and vice versa.

At this point, we can now consider a few of the cautions about correlations. First, correlations are almost never solidly at the extremes of –1.0 or +1.0. Most of the time, correlations are closer to the middle of that range, which is 0.0. The reason is that there are almost always exceptions to even the strongest relationships. For example, the strong, negative relationship between Days Absent and Grades in Chemistry is never likely to reach –1.0 because there will always be those students who are absent a lot (perhaps due to illness, etc.) but who nonetheless obtain high grades, due to their effort, motivation, or any number of other reasons. Similarly, the strong, positive correlation between height and shoe size is never going to be perfect (i.e., +1.0) because there will be people who don't fit the trend; that is, there will always be some tall people who have small feet and some short folks who have big feet.

So, Caution Number 1 when interpreting correlational evidence is that there are always exceptions to the general tendency represented by the correlation. Knowing, for example, that a student had a high number of absences does not necessarily guarantee that the student also earned a low grade. This caution is important for interpreting the correlational evidence about cheating. There may be a positive relationship between fraternity/sorority membership and cheating (in

fact, there is). That *does not* mean, however, that a student who is a member of a fraternity or sorority is a cheater.

Caution Number 2 regarding correlations is that the size of the correlation matters. Correlations near the extremes (i.e., near –1.0 or near +1.0) indicate very strong relationships and very strong tendencies. Such correlations are also very rare. Most of the time in the social sciences we observe correlations much closer to zero. A correlation of 0.0 indicates that there is no relationship between the two variables.[1] Weak positive or weak negative correlations (say, near +.25 or –.25) are much more common than stronger ones. Weak correlations mean that the relationships between the variables are very slight, hard to detect, and that there are likely a large number of other variables that contribute as much or more to the relationship. For example, there is actually a very weak positive correlation between height and IQ (near .05). What do we do with such information? Almost certainly there are other factors that contribute to individual differences in height and intelligence, and it is likely that some other unidentified variable accounts for the relationship (e.g., prenatal nutrition). Thus, for the most part, the press might find such a correlation to be mildly interesting, and may even sensationalize the relationship to make a few-second blurb on a news program or in a magazine. Scientists would probably continue to speculate as to why even such a slight correlation exists. But, for the most part, people could probably (and safely) ignore the finding because the tendency is so weak.

This second caution is also important for understanding the characteristics of students who cheat. Like most other correlational evidence in the social sciences, the correlations calculated between some personal characteristic and incidence of cheating are usually quite modest. Again, this means that even any tendencies that are identified are usually weak ones. Some are, arguably, strong enough to warrant our attention; others are weak enough to be safely ignored.

Finally, a third caution has to do with the fact that even the strongest correlations do not directly indicate that one of the variables *causes* the other. For example, we don't necessarily know whether being absent a lot causes a student to have low grades, or whether students who are getting low grades just decide to skip classes more often. By extension, does being in a fraternity or sorority cause a person to be more likely to cheat, or are persons who are not as reticent about cheating more likely to join a fraternity or sorority? To be sure, sometimes we know that the direction of a relationship *must* be in a certain direction. For example, if we are looking at the relationship between a student's sex and the incidence of cheating, we may not be sure if being a boy or a girl *causes* a person to cheat, but we are certain that the relationship could not go in the other direction; that is, it is not

possible that engaging in cheating caused a person to be a boy or a girl! The bottom line for caution number 3 is that we should always be vigilant about avoiding the impulse to jump to conclusions about direction of effect or causation.

Characteristics of Students Associated With Cheating

A handful of student characteristics have been included in nearly every study of cheating: these include the student's sex, previous grades/achievement, and age or grade in school. A number of studies have also addressed membership in a fraternity or sorority and the strength of students' religious beliefs. The following sections summarize some of what we know about the demographic and other student characteristics associated with cheating.

Sex. Of the student characteristics related to cheating, sex has been the single most-studied variable, and there is a fairly solid body of research from which to draw conclusions about any differences between the sexes in terms of cheating behavior. At the elementary school level, there appears to be little if any difference between boys and girls in their propensity to cheat. Though most of the academic research on cheating has involved college-aged populations, some evidence in studies involving younger children is relevant.

An early, classic study of cheating was conducted by Hartshorne and May (1928), who investigated whether very young boys and girls would be tempted to "peek" in order to be successful at a school-related task. They found no differences between boys and girls. Subsequent studies also found no differences between boys and girls at the second- and third-grade level (Coady & Sawyer, 1986), at the sixth-grade level (Krebs, 1969), and in a sample of sixth, seventh, and eighth graders (Anderman, Griesinger, & Westerfield, 1998).

By the time students leave elementary school, however, sex differences begin to appear. At the high school level, researchers have documented a somewhat greater incidence of cheating on the part of boys (Davis, Grover, Becker, & McGregor, 1992; Schab, 1969). Even one of the few studies to find more cheating by girls in elementary school (Feldman & Feldman, 1967) found that any greater incidence of cheating by girls disappears by the senior year of high school, when the incidence of cheating by boys becomes greater. Interestingly, one other study found that while boys may cheat more in general, girls admitted to cheating as much as boys when the motivation for cheating was helping another student (as opposed to getting better grades, etc., for themselves; Calabrese & Cochran, 1990).

In postsecondary settings, sex differences persist and, perhaps, increase. Because of the comparatively greater amount of research on cheating conducted at the college level, we can be fairly confident regarding the consistent finding of more cheating admitted by males (see Baird, 1980; Davis et al., 1992; Hetherington & Feldman, 1964). A study by Baldwin, Daughtery, Rowley, and Schwarz (1996) involving students at the high school, college, and graduate (medical school) levels also found greater incidence of cheating by males at each level.

In conclusion, a reasonable summary of the evidence regarding the relationship between sex and cheating is that there are essentially no differences between boys and girls in the early school years, but that boys surge ahead of girls in the later high school years and are consistently found to engage in cheating more than girls during college and beyond. Some of the most recent evidence suggests, however, that any post–high school "cheating gap" may be decreasing, though the reasons for decreasing differences between boys and girls are not yet clear. A number of speculations can be put forth for declining sex differences in cheating. As one researcher summarized the situation,

> This difference appears to be eroding, and some recent studies have reported similar rates of cheating for female and male students. Despite evidence that girls have a greater tendency to follow rules and fear of the consequences if they are caught, women may have a growing sense that they have to cheat to compete with the male students they see cheating in their classes. This tendency seems especially true at the college level in historically male-dominated majors such as business and accounting. (McCabe, 2001, p. 41)

Previous Grades/Achievement. A second commonly investigated student characteristic that has been studied for its possible relationship to cheating is students' previous academic achievement or course grades. Although there are, as usual, some exceptions, it seems to hold generally that students with weaker previous achievement tend to cheat more often than higher-performing students.

At the elementary school level, there is comparatively little research on the relationship between grades and cheating. However, one fairly large-scale study conducted in California elementary schools found more cheating by students with lower grades in a diverse sample of California elementary school students (Brandes, 1986).

At the college level, numerous studies have observed the tendency for cheating to be engaged in more frequently by students with weaker prior achievement. For example, Baird (1980) found a moderate negative correlation (–.34) between students' self-reported frequency of

cheating and their self-reported grade point averages (GPAs). From the discussion of the concept of correlation presented previously in this chapter, we can interpret this finding to mean that there is a modest tendency for students with *lower* GPAs to admit to *more* cheating, and vice versa. A similar, negative correlation between cheating and grades was found by Antion and Michael (1983), who compared self-reported GPAs with actual (as opposed to self-reported) cheating in a group of community college students. Another study (Scheers & Dayton, 1987) found hefty differences in amounts of self-reported cheating for various GPAs, ranging from 21% of students at the highest GPA level admitting to copying on examinations to 86% at the lowest GPA level.

Overall, the research on the relationship between student ability and likelihood of cheating paints a fairly consistent picture. Students with lower prior achievement appear to be more likely to cheat; students with higher prior achievement are less likely. Our knowledge of how to interpret correlational evidence reminds us, however, that the relationship is only slight to moderate, and that having poor prior grades does not *cause* a student to cheat, nor do high grades inoculate a student against the temptation.

Age/Grade in School. A third commonly studied characteristic is students' age or grade level in school and its relationship to cheating. This relationship is somewhat more complex than the other variables we have looked at so far (i.e., sex, prior grades). This is because age or grade level *changes* while students progress through school while, for example, a student's sex remains the same. Further, as a student progresses through the grade levels, other factors can also change, such as the student's family structure, socioeconomic status (SES), achievement, maturity level, and so on. We know from other research examining these changes that, as a group, students tend to become more homogeneous in terms of achievement, more motivated, more economically advantaged, and (of course) older, as they progress through the American educational system.

These changes are probably obvious. However it is important to state them in light of the cautions for interpreting correlational evidence mentioned previously in this chapter. Namely, if (for example) cheating increases with the age/grade level of students and students tend to have greater levels of achievement motivation as they progress through the grades, then we cannot be sure from correlational evidence whether the increase in cheating should be attributed to simply getting older, or to increased achievement motivation (or both) or to some combination of these and other changes that occur as students progress through the grades.

For our purposes, we will not explore all of the nuances inherent in these relationships. There is sufficient evidence to arrive at some basic conclusions about the relationship between the age/grade level of students and the incidence of cheating. If graphed, the pattern would look like an inverted U shape. That is, cheating is comparatively scarcer in the early elementary grades, it reaches a peak in the late high school years, then it tapers off somewhat in college. First, I review some of the evidence that supports this conclusion. Then, as before, a few cautions will be mentioned.

There is abundant evidence that cheating appears to reach a peak in high school. For example, in Brandes's (1986) study of California 6th and 11th graders, a significantly higher incidence of cheating was reported by the high schoolers than the elementary school students. In the study by Davis et al. (1992), students self-reported significantly less cheating in high school than in college. In Baird's (1980) survey, 84.5% of the students reported cheating while they were in high school, whereas 75.5% reported cheating in college.

In summary, the relationship between cheating and student age/grade level is fairly sure. The primary caution when interpreting the evidence pertaining to student age/grade level and cheating is that the evidence is predominately of the survey or self-report variety. That means, for example, that we cannot be sure that cheating truly declines at the college level. It may be that college students cheat as much or more than high school students but are simply less inclined to *admit* to cheating. Such speculation is bolstered by the fact that, in many collegiate settings, the penalties for cheating can be considerably more serious than they generally are at the high school level. Even when it comes to data sources other than surveys, it is reasonable to ask whether there is really less cheating in college, or simply whether few students are caught. Another possibility is that, if cheating is related to achievement and those at lower achievement levels are more likely to cheat, those same students may be less likely to enter college in the first place.

Other Student Characteristics. A number of other student characteristics have been investigated for their potential relationship to cheating. Some of these characteristics have been investigated in great depth; some have received only slight attention. In Table 1.1 a potpourri of such characteristics is presented along with tentative classifications according to what the evidence indicates about its relationship to cheating. Rather than attempt to cover the landscape in great depth, characteristics will be identified along with a key study from which the finding was obtained and the context in which the research was conducted (e.g., elementary, secondary, college). It is important to note at

the outset, however, that for many of these characteristics, the body of evidence is not as great as was the case for sex, previous achievement, or age/grade in school. Thus, these findings should be regarded with greater caution. The table organizes the characteristics into three groups: characteristics not associated with cheating; characteristics negatively related to cheating; and characteristics positively related to cheating. Again, we recall that a negative relationship indicates that "*more*" of some variable is related to *less* cheating and vice versa, while a positive relationship indicates that more of the variable is related to more cheating.

Conclusion. A review of Table 1.1 suggests that any conclusions about student characteristics related to cheating are not so tidy. The research probably confirms some stereotypes about cheating; other stereotypes don't appear to hold. Ascertaining which students cheat based simply on student characteristics is, for the most part, little better than guessing. (In fact, a study has even been conducted on this issue! In a study of high school boys' performance on a geometry test, the researchers found a modest but positive relationship between teachers' hypotheses about student cheating and the students' actual cheating on a self-graded test [Leveque & Walker, 1970]).

Information about some tendencies for certain student characteristics to be related to cheating may be interesting, but, as was noted earlier, these relationships provide only crude guidance at best. Overall, the best predictor of cheating on an assignment or test appears to be having cheated previously. The landmark study of cheating by Bowers (1964) found that 64% of students who reported cheating in high school went on to cheat in college; conversely, 67% of those who said they had not cheated in high school reported that they sustained academic honesty in college.

In summary, the evidence presented in Table 1.1 serves not so much as an aid to identifying student characteristics that predict cheating as it does as a caution about making improper generalizations and a stimulus to arranging student **assessments** in such a way as to prevent academic dishonesty.

Characteristics of Classrooms Associated With Cheating

Though comparative studies have not been done, it is almost certain that classroom factors—such as teacher characteristics, characteristics of the test or assignment, and classroom environment—have as much or more to do with cheating than student characteristics. In fact, surveys of students reveal that they commonly report classroom factors as being related to cheating. For example, in one survey in which college students were asked to identify the factors most

Table 1.1 Student Characteristics, Contexts, and Their Relationship to Cheating

No Relationship to Cheating	*Context*	*Reference*
Absence from class	College	Black (1962)
Achievement motivation	College	Roig & Neaman (1994)
Church membership	College	Knowlton & Hamerlynck (1967)
Conservative/liberal political beliefs	College	Clouse (1973)
Extracurricular activity participation	College	Baird (1980)
Minority/majority ethnicity	Grade 6-8	Anderman, Griesinger, & Westerfield (1998)
	Grade 9-12	Calabrese & Cochran (1990)
	College	Sierles, Kushner, & Krause (1988)
Moral reasoning/ development level	Grade 9-12	Bruggeman & Hart (1996)
Parental education level	Grade 6-8	Anderman, Griesinger, & Westerfield (1998)
Religious preference	College	Sierles, Hendrickx, & Circle (1980)
Self-esteem	Grade 5-6	Lobel & Levanon (1988)
Type A personality	College	Davis et al. (1992)
Negative Relationship to Cheating	*Context*	*Reference*
Academic self-concept	Grade 10-12	Rost & Wild (1994)
Being married	College	Diekhoff et al. (1996)
Church attendance	College	Hertherington & Feldman (1964)
Expectation of academic success	Grade 5-6	Vitro & Schoer (1972)
Intelligence (IQ)	Grade 9-12	Leveque & Walker (1970)
	College	Hoff (1940), Gross (1946)
Internal locus of control	College	Kahle (1980)
Introversion	Grade 6-7	Keehn (1956)
	College	Singh & Akhtar (1972)
Intrinsic motivation	Grade 5-6	Lobel & Levanon (1988)
Involvement in religious activities	College	Sutton & Huba (1995)
Learning orientation	College	Huss et al. (1993)

(Continued)

Table 1.1 (Continued)

Negative Relationship to Cheating	*Context*	*Reference*
Moral reasoning level	College	Leming (1978)
Need for achievement	Grade 10-12	Rost & Wild (1994)
Responsibility	College	Hertherington & Feldman (1964)
Self-support for college costs	College	Graham et al. (1994)
Trust in others	Grade 5	Doster & Chance (1976)
Positive Relationship to Cheating	*Context*	*Reference*
Alienation/dislike for school	Grade 9-12	Calabrese & Cochran (1990)
Arrests	Grade 9-12	Calabrese & Cochran (1990)
Belief that peers cheat	College	McCabe & Trevino (1993)
Chance of detection	Grade 6	Hill & Kochendorfer (1969)
	College	McCabe & Trevino (1993)
Cheating (engaging in one form of cheating)	College	Roig & DeTommaso (1995)
Cheating (previous cheating)	Grade 9-12	Bowers (1964)
	College/ Medical school	Baldwin et al. (1996); Sierles, Hendrickx, & Circle (1980)
Employment, full-time	College	Nowell & Laufer (1997)
Ethics instruction	College	Ames & Eskridge (1992)
Fear of negative evaluation	College	Dickstein, Montoya, & Neitlich (1977)
Felony conviction	College	Heisler (1974)
First-born child status	College	Hertherington & Feldman (1964)
Fraternity/sorority membership	College	McCabe & Bowers (1996)
Grade orientation	College	Huss et al. (1993)
Intramural athletics participation	College	Haines et al. (1986)
Intercollegiate athletics participation	College	Diekhoff et al. (1996)
Motivation to avoid failure	Grade 10-12	Rost & Wild (1994)
Need for approval	Grade 5-6	Lobel & Levanon (1988)

Positive Relationship to Cheating	*Context*	*Reference*
On-campus housing	College	Graham et al. (1994)
Procrastination	College	Roig & DeTommaso (1995)
Scholarship awardee	College	Diekhoff et al. (1996)
School anxiety	Grade 10-11	Shelton & Hill (1969)
	College	Antion & Michael (1983)
Socio-economic status (SES)	Grade 9-12	Leveque & Walker (1970)

related to frequent cheating, 42% said that "instructor shortcomings" were responsible, followed by characteristics such as the physical setting of the classroom (35%), and characteristics of the test or assignment (23%; Knowlton & Hamerlynch, 1967).

A number of specific relationships between classroom characteristics and cheating are presented in Table 1.2. The studies referenced in the table and others provide a somewhat clearer picture of school-related characteristics associated with cheating compared with the situation described previously for student characteristics.

Overall, the evidence suggests that students tend to cheat less often when

- Classes are smaller
- Classroom conditions (both physical and instructional) are established that are conducive to learning
- Instruction, assignments, and tests are clear, well-designed, meaningful, and relevant
- Teachers take reasonable steps to prevent cheating

Beyond these key conclusions, there are also some useful lessons to be learned from students and their perceptions of their teachers and classroom conditions. Two studies are particularly illuminating. In the first study, junior high school students were asked about the classroom variables they believed were most related to cheating. The students mentioned a number of classroom factors, but a large percentage of those surveyed (65%) indicated that "a lack of clarity about reasons or purposes for learning" was an element strongly related to cheating (Evans & Craig, 1990, p. 334). In the second study, Genereux and McLeod (1995) investigated the perceptions of college students related to cheating and classroom factors. One of their findings was that cheating was more likely when students perceived that their instructor assigned unreasonable amounts of work. More disconcerting,

Table 1.2 School and Classroom Characteristics, Contexts, and Their Relationship to Cheating

No Relationship to Cheating	*Context*	*Reference*
School type (public/private)	High school	Bruggeman & Hart (1996) (though Calabrese & Cochran [1990] found more cheating in private schools; McCabe [2001] found more cheating in public schools)
Negative Relationship to Cheating	*Context*	*Reference*
Course content meaningfulness/ interest	College	Steininger, Johnson, & Kirts (1964)
Instructional quality (student-perceived)	College	Blackburn & Miller (1996)
Positive Relationship to Cheating	*Context*	*Reference*
Class size	College	Nowell & Laufer (1997)
Coercive classroom management style	Grade 4-6	Houser (1982)
Distracting classroom environment	College	Houston (1976)
High performing schools	Elementary	Brandes (1986); Anderman, Griesinger, & Westerfield (1998)
	High school	Brandes (1986)
Opportunity to cheat	College	Cooper & Peterson (1980)

however, was the finding that many students reported that their teachers seemed unconcerned about cheating. A more recent and larger-scale survey of high school juniors confirms this finding. The study revealed that 47% of high school juniors say their teachers sometimes ignore cheating; 11% indicated that they believed that their teachers simply didn't care about the problem (McCabe, 2001).

Students' Reasons for Cheating

In contrast to the complexities and nuances of other aspects of cheating, the reason students give for cheating is simple and straightforward: They want a higher grade than they might have earned without cheating.

In the preceding section, we saw that students are more likely to cheat under certain classroom or instructional conditions, such as when they perceive an assignment to be unfair, or when they perceive that they have been subjected to an inordinate workload. It is important to be aware of these perceptions on the part of students because—if we are interested in deterring students from cheating—these factors are largely under the classroom teacher's control. As such, conscientious instructors can attempt to be more cognizant of the amount of work they assign, the relevance and interest level of what is taught, and of basic fairness in testing and grading.

On the other hand, it is also important to remember that correlational evidence regarding variables that tend to be associated with cheating is just that: the factors are *related*, not *causal*. Classroom correlates are related to cheating, but they are not the *reasons* students cheat—at least they are not the reasons students provide when asked why they cheat.

Decades of investigations into students' reasons for cheating still boil down to one fundamental reason: higher grades. The finding holds across grade levels, sexes, subject areas, and settings. Researchers have frequently surveyed students and obtained lists of different reasons, so we even have evidence bearing on which motivations are of greater and lesser importance to students. However, even in the diversity of reasons given by students, the common thread of higher grades always emerges.

In most cases, the primary reason of wanting higher grades even subsumes most of the other, less often stated reasons. For example, one of the earliest studies to elicit students' reasons for cheating was a simple, confidential survey of grade school and high school students (Ludeman, 1938). The researcher (who at the time was the dean of the Southern State Normal School in Springfield, South Dakota) published the survey and results in a school administrators' journal. An excerpt of the student questionnaire is shown in Figure 1.1.

As Figure 1.1 reveals, getting better grades was the second most frequently mentioned reason for cheating at both the elementary and high school levels. At both levels, the most frequently given reason was "to keep up with the Joneses." The students reported that they believed other students cheated and got by, which caused them to cheat. At first glance, this reason might seem to be more related to peer pressure

Directions:

As a problem in research work in educational psychology, we wish to find out the truth about cheating in school. Will you co-operate with us and please check this questionnaire? You may tell the exact truth because your check work will not be identified, for you do not sign your name.

		Number of Responses	
		Grade School	*High School*
Did you cheat in grade-school/ high-school tests?	Yes	78	144
	No	103	37
Why were you forced to cheat?			
a. to get better grades		28	51
b. work was hard and cheating helped me keep up		8	17
c. I was lazy so I cheated because I didn't always have my lessons		14	25
d. to spite the teacher		5	14
e. because others cheated and got by		37	69

From Ludeman, 1938, p. 45.

Figure 1.1 1938 Survey of Elementary and High School Students' Reasons for Cheating

than a desire to get higher grades. However, it is important to remember that acceptable grading practices in education have changed dramatically. At the time this study was conducted, the most common grading plan was to assign grades in a normative fashion—what is now sometimes called "grading on the curve." In a **norm-referenced** grading scheme, a student's grade depends as much on how other students perform as it does on the student's own performance. A good score on a test could translate into a poor grade if most of the other students obtained higher scores. Thus, it is clear that the leading reason for cheating given by students in the 1930s—"because other students cheated"—was really a statement about a concern for getting a higher grade (or at least one that maintained position relative to the grades other students obtained).

Dozens of other studies—and many recent ones—have confirmed that the primary reasons elementary and secondary school students give for cheating are related to the press for higher grades. A deeper look at the reasons students feel compelled to cheat for grades is also informative, however. For example, some studies have attempted to

understand the source of students' press for higher grades. Among the commonly identified underlying causes are the following:

- Increasing parental pressure to perform
- The role that grades play in college admissions
- Perceived unrealistic complexity, challenge, or time requirements of assignments

One study interviewed students about their reasons and recorded the students' comments. According to the students,

> "Marks are more and more necessary for college."
>
> "Many teachers are unreasonable about assignments. If they are unfair and pile on the work, your have to cheat in order to survive."
>
> "Some tests are unfair. They don't cover what you have learned."
>
> "There is too much emphasis on the marks you get rather than what you know."
>
> "Parents keep pushing. They are not satisfied with less than a B average." (Cornehlsen, 1965, p. 107)

As far as cheating in college, the same pattern of results has also been documented in surveys of why college students cheat. A 1941 study by Drake concluded that "the crux of the situation is the competition for marks" (1941, p. 420). And the situation has apparently not changed much since the time of that survey. A survey administered in the 1980s gave college students a list of eight choices and asked them to indicate their reasons for cheating. Students were permitted to check more than one reason, but the results were the same: 35% of students identified competition for grades as the primary reason for cheating; 33% said they cheated because they did not have enough study time; 26% said that an unmanageable workload was the reason (Baird, 1980). Business majors were much more frank in the reasons they gave; according to a survey, the students reported that "cheating required less effort and that it was perceived as the best way to get ahead" (Stevens & Stevens, 1987, p. 27).

Conclusions

In its most essential form, cheating can be defined as *any action that violates the rules that have been established for a classroom test or*

assignment. Under this definition, however, we would not be concerned if a student were to violate the rules of a test by, say, using a #3 pencil instead of a #2, or if the student were to submit a term project using a 10-point font instead of the 12-point font stipulated by the teacher. As regards cheating, we mean by "the established rules" of a test or assignment those guidelines that are intended (1) to prevent one student from gaining an unfair advantage over others in terms of grades, opportunities, rewards, and so on; and (2) to promote accuracy in the meaning that students, teachers, parents, and others can make from a student's performance.

In this chapter, we also saw some of the ways that cheating has been studied. We reaped some of the benefits of that research, especially as regards what social scientists have discovered about the characteristics of students and classrooms that tend to be related to cheating. In short, many student characteristics are related to cheating, though most only modestly so. In the social sciences, it is axiomatic that the best predictor of future behavior is past behavior. As it turns out, the same is true for cheating: The best predictor of cheating on a current test or assignment is whether the student has cheated on a similar test or assignment in the past. As far as other student characteristics, the state of the evidence is such that it would be highly inappropriate—and inaccurate—to speculate about any particular student's likelihood of cheating based only on knowledge of any of the various characteristics that have been studied to date.

Student characteristics are also not something that teachers can do much (if anything) about. On the other hand, there are many classroom characteristics related to cheating and over which teachers have substantial control. Among these are teacher's classroom management style, the level of difficulty and amount of work assigned to students, and the fairness of tests and assignments. (In Chapter 5 we will take a closer look at these factors—and others—in an attempt to focus on how cheating can be prevented.)

Finally, in this chapter we learned about students' reasons for cheating. Surveys and interviews with students in elementary school, high school, and college have yielded very consistent findings. In brief, cheating is usually viewed as a time-saving way to get better grades. In an interview for the *Atlanta Journal-Constitution,* an elementary school student from Orlando, Florida, summarized her rationale for cheating: "Ten minutes of cheating is better than two hours studying" (quoted in Cumming, 1995, p. B2). A high school student participating in a focus group on cheating told the researcher, "If cheating is going to get you the grade, then that's the way to do it" (quoted in McCabe, 1999, p. 683).

All of the information about cheating presented in this chapter is not necessarily a cause for hand-wringing, however. For example, we

might not be worried about cheating if no harm resulted from the behavior. Or, even if it were established that cheating was harmful in some ways, it might not be a cause for concern if it happened very infrequently. Thus, before concluding that cheating should receive greater or lesser attention in the classroom, it is important to ascertain how frequently cheating occurs and what harm, if any, it poses. We pursue these issues in the next chapter.

Questions for Further Discussion

Look again at the scenarios beginning on page 2. What other classroom situations have you encountered that

You believe are clearly cheating, but some of your colleagues do not?

You believe are not cheating, but some of your colleagues consider to be cheating?

You are uncertain as to whether they represent cheating or not?

Consider the definition of cheating presented at the bottom of page 3. Do you agree with this definition? What parts of the definition would you change?

Perhaps you have heard a teacher say something like, "I just *know* that a student has cheated, but I can't prove it." Think of a time when you had such a feeling. What characteristics of the student or the situation do you think led you to feel that way?

Besides those mentioned in the chapter, what student, teacher, or school characteristics do you think (a) encourage and (b) discourage student cheating?

This chapter touched on some ways that researchers study cheating. If you wanted to investigate cheating in your classroom/school/district, what specific things might you do?

Note

1. For our purposes, this statement is accurate enough. However, a more technically precise rendering would note that a correlation of 0.0 means that there is no *linear* relationship between the variables.