



## CHAPTER TEN

# Motivating Students to Learn

### CHAPTER OUTLINE

What Is Motivation?

What Are Some Theories of Motivation?

Motivation and Behavioral Learning Theory

Motivation and Human Needs

Motivation and Attribution Theory

Motivation and Mindset

Motivation and Self-Regulated Learning

Motivation and Expectancy Theory

What Factors Affect Students' Motivation?

Motivation and Goal Orientations

Learned Helplessness

Teacher Expectations and Achievement

Anxiety and Achievement

### LEARNING OUTCOMES

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

- 10.1** Describe theories of motivation
- 10.2** Describe how goals and attributions enhance achievement motivation
- 10.3** Discuss how teachers can increase their students' motivation to achieve
- 10.4** Describe how knowledge of motivation informs intentional teaching

## CHAPTER OUTLINE (CONTINUED)

How Can Teachers Increase Students' Motivation to Learn?

Intrinsic and Extrinsic Motivation  
Enhancing Intrinsic Motivation

Principles for Providing Extrinsic Incentives to Learn

Using Praise Effectively  
Teaching Students to Praise Themselves

The students in Cal Lewis's tenth-grade U.S. history class are all in their seats before the bell rings, eagerly awaiting the start of the period. After the bell, in he walks dressed as George Washington, complete with an 18th-century costume and powdered wig and carrying a gavel. He gravely takes his seat, raps the gavel, and says, "I now call to order this meeting of the Constitutional Convention."

The students have been preparing for this day for weeks. Each of them represents one of the 13 original states. In groups of two and three, they have been studying all about their states, the colonial era, the American Revolution, and the United States under the Articles of Confederation. Two days ago, Mr. Lewis gave each group secret instructions from their "governor" on the key interests of their state. For example, the New Jersey and Delaware delegations are to insist that small states be adequately represented in the government, whereas New York and Virginia are to demand strict representation by population.

In preparing for the debate, each delegation had to make certain that any member of the delegation could represent the delegation's views. To ensure this, Mr. Lewis assigned each student a number from one to three at random. When a delegation asks to be recognized, he will call out a number, and the student with that number will respond for the group.

Mr. Lewis, staying in character as George Washington, gives a speech on the importance of the task they are undertaking and then opens the floor for debate. First, he recognizes the delegation from Georgia. He randomly selects the number two, which turns out to be Beth Andrews. Beth is a shy girl, but she has been well prepared by her fellow delegates to represent Georgia, and she knows that they are rooting for her.

"The great state of Georgia wishes to raise the question of a Bill of Rights. We have experienced the tyranny of government, and we demand that the people have a guarantee of their liberties!"

Beth goes on to propose elements of the Bill of Rights that her delegation has drawn up. While she is

talking, Mr. Lewis is rating her presentation on historical accuracy, appropriateness to the real interests of her state, organization, and delivery. He will use these ratings in evaluating each delegation at the end of the class period. The debate goes on. The North Carolina delegates argue in favor of the right of states to expand to the west; the New Jersey delegation wants western territories made into new states. Wealthy Massachusetts wants taxes to remain in the states where they are collected; poor Delaware wants national taxes. Between debates, the delegates have an opportunity to do some "horse trading," promising to vote for proposals important to other states in exchange for votes on issues important to them. At the end of the week, the class votes on 10 key issues. After the votes are taken and the bell rings, the students pour into the hall still arguing about issues of taxation, representation, and powers of the executive.

After school, Rikki Ingram, another social studies teacher, drops into Mr. Lewis's classroom. "I see you're doing your Constitutional Convention again this year. It looks great, but how can you cover all of U.S. history if you spend a month just on the Constitution?"

Cal smiles. "I know I'm sacrificing some coverage to do this unit, but look how motivated these kids are!" He picks up a huge sheaf of notes and position papers written by the South Carolina delegation. "These kids are working their tails off, and they're learning that history is fun and useful. They'll remember this experience for the rest of their lives!"

### USING YOUR EXPERIENCE

**CRITICAL THINKING** Rikki Ingram seems concerned that Mr. Lewis's class is not covering the material well enough. What do you think are the advantages, disadvantages, and interesting or unclear aspects of Mr. Lewis's teaching strategy?

**COOPERATIVE LEARNING** With another student, relate stories of a social studies or other high school teacher who tried methods similar to Mr. Lewis's method of teaching. As a pair, retell your stories to a student from another pair.

**InTASC 3****Learning  
Environments**

Motivation is one of the most important ingredients of effective instruction. Students who want to learn can learn just about anything. But how can you ensure that every student wants to learn and will put in the effort needed to master complex material?

Mr. Lewis knows the value of motivation, so he has structured a unit that taps many aspects of motivation. By placing students in groups and evaluating them on the basis of presentations made by randomly selected group members, he has created a situation in which students are encouraging each other to excel. Social motivation of this kind is very powerful, especially for adolescents. Mr. Lewis is rating students' presentations according to clear, comprehensive standards and giving them feedback each day. He is tying an important period in history to students' daily lives by immersing them in active roles of debating and trading votes. These strategies are designed not only to make history fun but also to give students many sources of motivation to learn and remember the history they have studied. Mr. Lewis is right. The students will probably never forget their experience in his class and are likely to approach new information about the American Revolution, the Constitution, and perhaps history in general with enthusiasm throughout their lives.

This chapter presents many of the ways in which you can enhance students' desire to learn academic material and the theories and research behind each method.

## WHAT IS MOTIVATION?

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One of the most critical components of learning, motivation is also one of the most difficult to measure. What makes a student want to learn? The willingness to put effort into learning is a product of many factors, ranging from the student's personality and abilities to the characteristics of particular learning tasks, incentives for learning, settings, and teacher behaviors.

All students are motivated. The question is: Motivated to do what? Some students are motivated more to socialize or watch television than to do schoolwork. Your job is not to increase motivation per se but to discover, prompt, and sustain students' motivation to learn the knowledge and skills needed for success in school and in life, and to engage in activities that lead to this learning. Imagine that Cal Lewis had come to class in 18th-century costume but had not structured tasks and evaluations to encourage students to study U.S. history. The students might have been amused and interested, but we cannot assume that they would have been motivated to do the work necessary to learn the material.

Psychologists define **motivation** as an internal process that activates, guides, and maintains behavior over time (Anderman, Gray, & Chang, 2013; Pintrich, 2003; Schunk, Pintrich, & Meece, 2008; Zimmerman & Schunk, 2011). In plain language, motivation is what gets you going, keeps you going, and determines where you're trying to go.

Motivation can vary in both intensity and direction (Ryan & Deci, 2000; Zimmerman & Schunk, 2011). Two students might be motivated to play video games, but one of them might be more strongly motivated to do so than the other. Or one student might be strongly motivated to play video games, and the other equally strongly motivated to play football. Actually, though, the intensity and direction of motivations are often difficult to separate. The intensity of a motivation to engage in one activity might depend in large part on the intensity and direction of motivations to engage in alternative activities. If someone has only enough time and money to go to the movies or to play video games, but not both, motivation to engage in one of these activities is strongly influenced by the intensity of motivation to engage in the other (Fries, Dietz, & Schmid, 2008). Motivation is important not only in getting students to engage in academic activities but also in determining how much students will learn from the activities they perform or from the information to which they are exposed. Students who are motivated to learn something use higher cognitive processes in learning about it and absorb and retain more from it (Driscoll, 2005; Jetton & Alexander, 2001; Pintrich, 2003). They are more likely to transfer their learning to new situations (Pugh & Bergin, 2006).

Motivation to do something can come about in many ways (Stipek, 2002). Motivation can be a personality characteristic; individuals might have lasting, stable interests in participating in such broad categories of activities as academics, sports, or social activities. Motivation can come from intrinsic characteristics of a task: By making U.S. history fun, social, active, and engaging, Cal Lewis made students eager to learn it. Motivation can also come from sources extrinsic to the task, as it did when Cal Lewis rated students' performances in the Constitutional Convention simulation.

## WHAT ARE SOME THEORIES OF MOTIVATION?

The first half of this chapter presents contemporary theories of motivation, which seek to explain why people are motivated to do what they do. The second half discusses the classroom use of incentives for learning and presents strategies for increasing students' motivations to learn and to do schoolwork.

### Motivation and Behavioral Learning Theory

The concept of motivation is closely tied to the principle that behaviors that have been reinforced in the past are more likely to be repeated than are behaviors that have not been reinforced or that have been punished (see Bandura, 2006; Borich, 2014; Dick et al., 2015; Levitt, List, Neckermann, & Sadoff, 2012; Schunk, 2016). Why do some students persist in the face of failure whereas others give up? Why do some students work to please the teacher, others to make good grades, and still others out of interest in the material they are learning? Why do some students achieve far more than would be predicted on the basis of their ability and some achieve far less? Examination of reinforcement histories and schedules of reinforcement might provide answers to such questions, but it is usually easier to speak in terms of motivations to satisfy various needs.

**REWARDS AND REINFORCEMENT** One reason why reinforcement history is an inadequate explanation for motivation is that human motivation is highly complex and context-bound. With very hungry animals we can predict that food will be an effective reinforcer. With humans, even hungry ones, we can't be sure what will be a reinforcer and what will not, because the reinforcing value of most potential reinforcers is largely determined by personal or situational factors. As an example of this, think about the value of \$50 in exchange for one hour of light work. Most of us would view \$50 as a powerful reinforcer, more than adequate to get us to do an hour of work. But consider these four situations:

1. Mr. Scrooge offers Bill \$60 to paint his fence. Bill thinks this is more than enough for the job, so he does his best work. However, when he is finished, Mr. Scrooge says, "I don't think you did 60 dollars' worth of work. Here's 50."
2. Now consider the same situation, except that Mr. Scrooge originally offers Bill \$40 and, when Bill is finished, praises him for an excellent job and gives him \$50.
3. Dave and Barbara meet at a party, like each other immediately, and after the party take a long walk in the moonlight. When they get to Barbara's house, Dave says, "Barbara, I enjoyed spending time with you. Here's 50 dollars I'd like you to have."
4. Marta's aunt offers her \$50 to give little Pepa a piano lesson next Saturday. However, if Marta agrees to do so, she will miss her chance to try out for the school baseball team.

In situations 1, 3, and 4, \$50 is not a good reinforcer at all. In situation 1, Bill's expectations have been raised and then dashed by Mr. Scrooge. In situation 2, the amount of monetary reward is the same, but this situation is much more likely to make Bill want to paint Mr. Scrooge's fence again, because in this case, his reward exceeds his expectation. In situation 3, Dave's offer of \$50 is insulting and would certainly not increase Barbara's interest in going out with him in the future. In situation 4, although Marta's aunt's offer would seem generous to Marta under most circumstances, it is insufficient reinforcement this particular Saturday because it interferes with a more highly valued activity.

**DETERMINING THE VALUE OF AN INCENTIVE** These situations illustrate an important point: The motivational value of an incentive cannot be assumed, because it might depend on many factors. When you say, "I want you all to be sure to hand in your book reports on time because they will count toward your grade," you might be assuming that grades are effective incentives for most students. However, some students might not care about grades, perhaps because their parents don't or because they have a history of failure in school and have decided that grades are unimportant. Saying to a student, "Good work! I knew you could do it if you tried!" might be motivating to a student who had just completed a task he or she thought was difficult, but insulting to one who thought the task was easy (because your praise implies that

#### Connections 10.1

For more on reinforcement of behaviors, see Chapter 5.

he or she had to work especially hard to complete the task). As in the case of Bill and Mr. Scrooge, students' expectations for rewards determine the motivational value of any particular reward. And it is often difficult to determine students' motivations from their behavior, because many different motivations can influence behavior. Sometimes, one type of motivation clearly determines behavior; at other times, several (perhaps conflicting) motivations are influential (Wentzel & Brophy, 2014).

## Motivation and Human Needs

### InTASC 1

#### Learner Development

Motivation can be thought of as a drive to satisfy needs, such as needs for food, shelter, love, and maintenance of positive self-esteem. People differ in the degree of importance they attach to each of these needs. Some need constant reaffirmation that they are loved or appreciated; others have a greater need for physical comfort and security. Also, the same person has different needs at different times. A drink of water would be appreciated much more after a 4-mile run than after a 4-course meal.

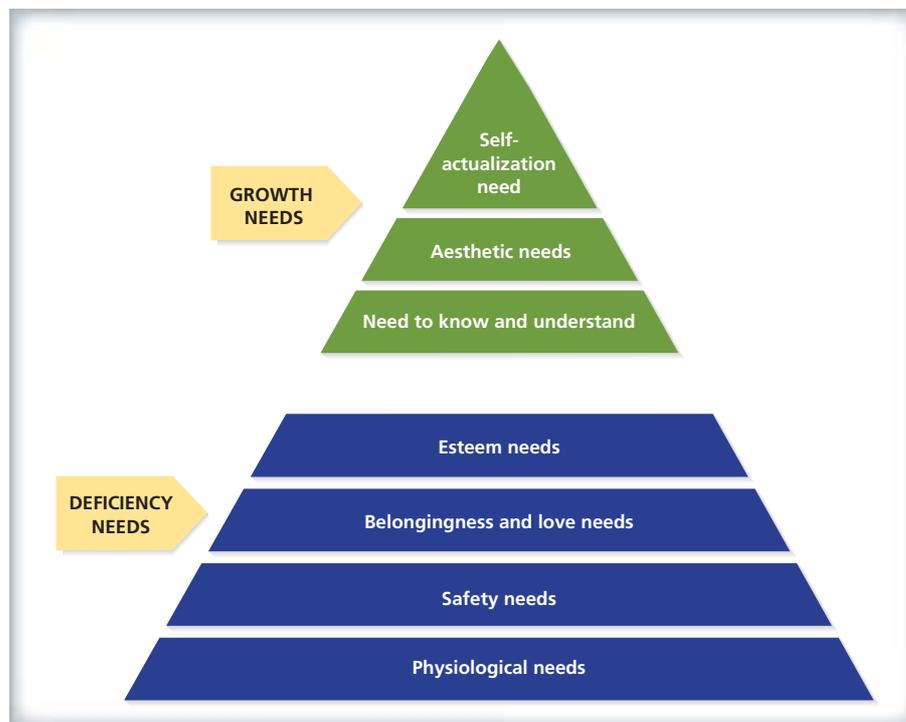
**MASLOW'S HIERARCHY OF NEEDS** Given that people have many needs, which will they try to satisfy at any given moment? To explain this, Maslow (1954) proposed a hierarchy of needs, which is illustrated in Figure 10.1. In Maslow's theory, needs that are lower in this hierarchy must be at least partially satisfied before a person will try to satisfy higher-level needs. For example, a hungry person or someone who is in physical danger will be less concerned about maintaining a positive self-image than about obtaining food or safety; but once that person is no longer hungry or afraid, self-esteem needs might become paramount. One critical concept that Maslow introduced is the distinction between deficiency needs and growth needs. **Deficiency needs** (physiological, safety, love, and esteem) are those that are critical to physical and psychological well-being. These needs must be satisfied, but once they are, a person's motivation to satisfy them diminishes. In contrast, **growth needs**, such as the need to know and understand things, to appreciate beauty, or to develop an appreciation of others, can never be satisfied completely. In fact, the more people are able to meet their need to know and understand the world around them, the greater their motivation may become to learn still more.

### Certification Pointer

Teacher certification tests will require you to identify which needs Maslow identified as deficiency needs and which he identified as growth needs.

### FIGURE 10.1 • Maslow's Hierarchy of Needs

Maslow identifies two types of needs: deficiency needs and growth needs. People are motivated to satisfy needs at the bottom of the hierarchy before seeking to satisfy those at the top.



**SELF-ACTUALIZATION** Maslow's theory includes the concept of **self-actualization**, which he defines as “the desire to become everything that one is capable of becoming” (Maslow, 1954, p. 92). Self-actualization is characterized by acceptance of self and others, spontaneity, openness, relatively deep but democratic relationships with others, creativity, humor, and independence—in essence, psychological health.

**IMPLICATIONS OF MASLOW'S THEORY FOR EDUCATION** The importance of Maslow's theory for education is in the relationship between deficiency needs and growth needs. Obviously, students who are very hungry or in physical danger will have little psychological energy to put into learning. Schools and government agencies recognize that if students' basic needs are not met, learning will suffer. They have responded by providing free breakfast and lunch programs. The most important deficiency needs, however, are those for love and self-esteem. Students who do not feel that they are loved and that they are capable are unlikely to have a strong motivation to achieve the higher-level growth objectives (Bergin, 2016; Martin & Dowson, 2009; Stipek, 2002). A student who is unsure of his or her worth or capability will tend to make the safe choice: Go with the crowd, study for the test without interest in learning the ideas, write a predictable but uncreative essay, and so on. If you can put students at ease and make them feel accepted and respected as individuals, you are more likely (in Maslow's view) to help them become eager to learn for the sake of learning and willing to risk being creative and open to new ideas. A school that emphasizes social-emotional learning might, in this view, create an environment that is more conducive to academic as well as social-emotional learning (see Greenberg et al., 2003; Hoffman, 2009; Jennings & Greenberg, 2009).

### Connections 10.2

Motivational factors affecting the academic performance of students who are at risk of school failure are discussed in Chapter 9.

## Motivation and Attribution Theory

Teresa usually gets good grades, but she just received a D on her first quiz in a new class. The mark is inconsistent with her self-image and causes her discomfort. To resolve this discomfort, Teresa might decide to work harder to make certain that she never gets such a low grade again. However, she might try to rationalize her low grade: “The questions were tricky. I wasn't feeling well. The teacher didn't tell us the quiz was coming. I wasn't really trying. It was too hot.” These excuses help Teresa account for one D—but suppose she gets several poor grades in a row. Now she might decide that she never did like this subject anyway or that the teacher shows favoritism to the boys in the class or is a hard grader. All of these changes in opinions and excuses are directed at avoiding an unpleasant pairing of inconsistent ideas: “I am a good student” and “I am doing poorly in this class, and it is my own fault.”

Teresa is struggling to find a reason for her poor grades that does not require her to change her perception of herself as a good student. She attributes her poor performance to her teacher, to the subject matter, or to other students—external factors over which she has no control. Or, if she acknowledges that her poor performance is her own fault, she decides that it must be a short-term lapse based on a momentary (but reversible) lack of motivation or attention regarding this unit of instruction.

**Attribution theory** (see Hareli & Weiner, 2002; Weiner, 2000, 2010) seeks to understand just such explanations and excuses, particularly when applied to success or failure (wherein lies the theory's greatest importance for education, in which success and failure are recurrent themes). Weiner (2000) suggests that most explanations for success or failure have three characteristics. The first is whether the cause is seen as internal (within the person) or external. The second is whether it is seen as stable or unstable. The third is whether it is perceived as controllable. A central assumption of attribution theory is that people will attempt to maintain a positive self-image. Therefore, when they do well in an activity, they are likely to attribute their success to their own efforts or abilities; but when they do poorly, they will believe that their failure is based on factors over which they had no control (Weiner, 2010). In particular, students who experience failure will try to find an explanation that enables them to save face with their peers (Juvonen, 2000). It has been demonstrated that if groups of people are given a task and then told that they either failed or succeeded (even though all, in fact, were equally successful), those who are told that they failed will say their failure was because of bad luck, whereas those told that they succeeded will attribute their success to skill and intelligence (Weiner, 2000).

Attributions for others' behavior are also important. For example, students are more likely to respond to a classmate's request for help if they believe that the classmate needs help because of a

temporary uncontrollable factor (such as getting hurt in a basketball game) than if they believe that help is needed because of a controllable factor (such as failure to study) (Weiner, 2010).

**ATTRIBUTIONS FOR SUCCESS AND FAILURE** Attribution theory deals primarily with four explanations for success and failure in achievement situations: ability, effort, task difficulty, and luck. Ability and effort attributions are internal to the individual; task difficulty and luck attributions are external. Ability is taken to be a relatively stable, unalterable state. In contrast, effort can be altered. Similarly, task difficulty is essentially a stable characteristic, whereas luck is unstable and uncontrollable. These four attributions and representative explanations for success and failure are presented in Table 10.1.

Table 10.1 shows how students often seek to explain success and failure differently. When students succeed, they would like to believe that it was because they are smart (an internal, stable attribution), not because they were lucky or because the task was easy or even because they tried hard (because “trying hard” says little about their likelihood of success in the future). In contrast, students who fail would like to believe that they had bad luck (an external, unstable attribution), which allows for the possibility of succeeding next time (Weiner, 2010). Of course, over time, these attributions might be difficult to maintain. As in the case of Teresa, a student who gets one bad grade is likely to blame it on bad luck or some other external, unstable cause. After several bad grades, though, an unstable attribution becomes difficult to maintain; no one can be unlucky on tests week after week. Therefore, a student like Teresa might switch to a stable but still external attribution. For example, she could decide that the course is too difficult or the teacher is unfair or make some other stable, external attribution that lets her avoid making a stable, internal attribution that would shatter her self-esteem: “I failed because I don’t have the ability” (Weiner, 2010). She might even reduce her level of effort so that she can maintain the belief that she could succeed if she really wanted to.

### Connections 10.3

Attributions for success or failure that are related to the socioemotional factors of self-esteem and peer relations are discussed in Chapter 3.

**LOCUS OF CONTROL AND SELF-EFFICACY** One concept central to attribution theory is **locus of control** (Rotter, 1954). The word *locus* means “location.” A person with an internal locus of control believes that success or failure is the result of his or her own efforts or abilities. Someone with an external locus of control is more likely to believe that other factors, such as luck, task difficulty, or other people’s actions, cause success or failure. Internal locus of control is often called *self-efficacy*, the belief that one’s behavior makes a difference (Bandura, 1997; Goddard, Hoy, & Woolfolk Hoy, 2004; Schunk & Pajares, 2004; Skinner & Greene, 2008). Locus of control or self-efficacy can be very important in explaining a student’s school performance. For example, several researchers have found that students who are high in internal locus of control have better grades and test scores than students of the same intelligence who are low in internal locus of control (Cappella & Weinstein, 2001; Caprara et al., 2008; Zimmerman, 2013). Studies have found locus of control to be the second most important predictor (after ability) of a student’s academic achievement (e.g., Dweck, 2007; Pietsch, Walker, & Chapman, 2003). The reason is easy to comprehend. Students who believe that success in school is due to luck, the teacher’s whims, or other external

**TABLE 10.1 • Attributions for Success and Failure**

Attribution theory describes and suggests the implications of people’s explanations of their successes and failures.

		CAUSAL LOCUS		
		INTERNAL	EXTERNAL	
	<b>Stable</b>	Ability “I’m smart” “I’m stupid”	Task Difficulty “It was easy” “It was too hard”	
Causal Stability				Expectancy
	<b>Unstable</b>	Effort “I tried hard” “I didn’t really try”	Luck “I lucked out” “I had bad luck”	
				Value (Pride)

Source: From “The development of an attribution-based theory of motivation: A history of ideas” by Bernard Weiner in *Educational Psychologist*. Published by *Educational Psychologist*, © 2010.

factors are unlikely to work hard. They tend to procrastinate or avoid difficult tasks (Steel, 2007). In contrast, students who believe that success and failure are primarily due to their own efforts can be expected to work hard (Bandura, 2012; Joët, Usher, & Bressoux, 2011; Pressley et al., 2003). In reality, success in a particular class is a product of both students' efforts and abilities (internal factors) and luck, task difficulty, and teacher behaviors (external factors). But the most successful students will tend to overestimate the degree to which their own behavior produces success and failure. Some experiments have shown that even in situations in which success and failure are in fact completely based on luck, students who are high in internal locus of control will believe that it was their efforts that made them succeed or fail (see Weiner, 2010).

It is important to note that locus of control can change and depends somewhat on the specific activity or situation. One difficulty in studying the effects of locus of control on achievement is that achievement has a strong effect on locus of control (Bong & Skaalvik, 2003). For example, the same student might have an internal locus of control in academics (because of high academic ability) but an external locus of control in sports (because of low athletic ability). If this student discovered some unsuspected skill in a new sport, he or she might develop an internal locus of control in that sport (but probably still not in other sports).

**IMPLICATIONS OF ATTRIBUTIONS AND SELF-EFFICACY FOR EDUCATION** In the classroom, students receive constant information concerning their level of performance on academic tasks, either relative to others or relative to some norm of acceptability. This feedback ultimately influences students' self-perceptions (Bandura, 2006; Schunk, 2016). Attribution theory is important in helping you understand how students might interpret and use feedback on their academic performance and in suggesting how you might give feedback that has the greatest motivational value (see Tollefson, 2000). In particular, it suggests that you should always praise students for their effort (which is controlled by them) rather than their intelligence (which is not) (see Dweck, 2007).

## Motivation and Mindset

The most important implication of attribution theory is that students have implicit theories, or **mindsets**, to explain success or failure. Carol Dweck (2006, 2010; Lin-Siegler, Dweck, & Cohen, 2016; Yeager & Dweck, 2012; Yeager et al., 2016) has taken this a step further by showing that existing mindsets can be changed and that this in turn can affect learning and other outcomes. In particular, Dweck and her colleagues describe experiments in which students were explicitly taught that intelligence is not a fixed, unchangeable characteristic of people, but a product of effort. For example, Blackwell, Trzesniewski, & Dweck (2007) reported an experiment with seventh graders. One group learned study skills in math along with an intervention designed to convince them that success in school is due to effort, not innate ability. Another group just learned study skills. Grades declined for the study-skills-only group, but increased for the “effort mindset” group. Several other experiments demonstrated similar outcomes among students of different ages (Yeager & Dweck, 2012).

The mindset experiments add a great deal to the claims of attribution theory, because they suggest that the positive relationship between effort attributions and achievement gains is not just due to people who perform well wanting to believe that they succeeded because they worked hard. If mindsets can be modified, and this affects achievement, then this provides strong evidence that mindsets cause achievement, not the other way around (see Lin-Siegler et al., 2016; Usher & Kober, 2012; Yeager, Walton, & Cohen, 2013).

## Motivation and Self-Regulated Learning

Self-regulated learning, discussed in Chapter 5, refers to “learning that results from students' self-generated thoughts and behaviors that are systematically oriented toward the attainment of their learning goals” (Schunk & Zimmerman, 2013, p. 45). As this definition makes clear, self-regulated learning is closely related to students' goals. Students who are highly motivated to learn something are more likely than other students to consciously organize their learning, carry out a learning plan, and retain the information they obtain (Efklides, 2011; Schunk & Zimmerman, 2013). For example, students with high reading motivation are more likely to read on their own and to use effective comprehension strategies (Miller, Partelow, & Sen, 2004). This motivation can come from



MyEdLab

### Video Example 10.1

Callie says she is not good in spelling but could get better with practice. She also says that when she has trouble, her parents encourage her to try herself before offering help. Would you describe her as having high self-efficacy?

### Connections 10.4

For more on self-regulated learning, see Chapter 5.

### Connections 10.5

For more on successful strategies for building self-determination, see Chapter 12.

many sources. Students can be taught specific self-regulation strategies, in which they learn to think strategically and evaluate their own efforts and outcomes. Such strategies have been shown to enhance learning (e.g., Germeroth & Day-Hess, 2013; Duckworth et al., 2016). Another source might be social modeling (Zimmerman, 2013), such as occurs when students see other students using self-regulated strategies. Another is goal-setting, in which students are encouraged to establish their own learning goals. A fourth is feedback that shows students that they are making good progress toward their learning goals, especially if the feedback emphasizes students' efforts and abilities (Zimmerman, 2013). Schunk and Zimmerman (2013) argue that motivation to engage in self-regulated learning is not the same as achievement motivation in general because self-regulated learning requires the learner to take independent responsibility for learning, not to simply comply with the teacher's demands. Fredricks, Blumenfeld, and Paris (2004) use the terms *engagement* and *investment* to describe motivation that leads students to engage in self-regulated learning, rather than simply doing the work and following the rules.

## Motivation and Expectancy Theory

**Expectancy theory** is a theory of motivation based on the belief that people's efforts to achieve depend on their expectations of reward. Atkinson (1964) developed theories of motivation based on the following formula:

$$\text{Motivation } (M) = \text{Perceived probability of success } (Ps) \times \text{Incentive value of success } (Is).$$

The formula is called an expectancy model, or **expectancy–valence model**, because it largely depends on the person's expectations of reward (see Pintrich, 2003; Stipek, 2002; Wentzel & Brophy, 2014; Wigfield, Tonks, & Klauda, 2009). What this theory implies is that people's motivation to achieve something depends on the product of their estimation of the chance of success (perceived probability of success,  $P_s$ ) and the value they place on success (incentive value of success,  $I_s$ ). For example, if Mark says, "I think I can make the honor roll if I try, and it is very important to me to make the honor roll," then he will probably work hard to make the honor roll. However, one very important aspect of the  $M = P_s \times I_s$  formula is that it is multiplicative, meaning that if people either believe that their probability of success is zero or do not value success, then their motivation will be zero (Trautwein et al., 2012). If Mark would like very much to make the honor roll but believes that he hasn't a prayer of doing so, he will be unmotivated. If his chances are actually good but he doesn't care about making the honor roll, he will also be unmotivated. Wigfield and colleagues (2009) found that students' beliefs that they were capable and the degree to which they valued academic success were, taken together, more important than their actual ability in predicting their achievement.

Atkinson (1964) added an important aspect to expectancy theory in pointing out that under certain circumstances, an overly high probability of success can be detrimental to motivation. If Mark is very able, it might be so easy for him to make the honor roll that he does not need to do his best. Atkinson (1958) explained this by arguing that there is a relationship between probability of success and incentive value of success such that success in an easy task is not as valued as success in a difficult task. Therefore, motivation should be at a maximum at moderate levels of probability of success. For example, two evenly matched tennis players will probably play their hardest. Unevenly matched players will not play as hard; the poor player might want very much to win but will have too low a probability of success to try very hard, and the better player may not value winning enough to exert his or her best effort. Confirming Atkinson's theory, more recent research has shown that a person's motivation increases as task difficulty increases—up to a point at which the person decides that success is very unlikely or that the goal isn't worth the effort (DeBacker & Nelson, 1999). This and other research findings indicate that moderate to difficult (but not impossible) tasks are better than easy ones for learning and motivation (Wentzel & Brophy, 2014; Wigfield & Eccles, 2000).

**IMPLICATIONS OF EXPECTANCY THEORY FOR EDUCATION** The most important implication of expectancy theory is the commonsense proposition that tasks for students should be neither too easy nor too difficult. If some students believe that they are likely to get an A no matter what they do, then their motivation will not be at a maximum. Similarly, if some students feel certain they will fail no matter what they do, their motivation will be minimal. Therefore, grading systems

## THEORY INTO PRACTICE

### Giving Students Motivating Feedback

Students who attribute their past failures on tasks to lack of ability are unlikely to expect to succeed in similar tasks and are, therefore, unlikely to exert much effort (Juvonen, 2000; Weiner, 2010). Obviously, the belief that you will fail can be self-fulfilling. Students who believe that they will fail will be poorly motivated to do academic work, and this might in turn cause them to fail. Therefore, the most damaging idea you can communicate to a student is that the student cannot learn.

Few teachers would say such a thing directly to a student, but the idea can be communicated just as effectively in several other ways. One is to use a competitive grading system (e.g., grading on the curve) and to make grades public and emphasize relative student rankings. This practice can make small differences in achievement level seem large, and students who receive the poorest grades might decide that they can never learn.

Alternatively, deemphasizing grades and relative rankings but expressing the (almost always correct) expectation that all students in the class can learn is likely to help students see that their chances of success depend on their efforts—an internal but alterable attribution that lets students anticipate success in the future if they do their best.

A stable, internal attribution for success (“I succeed because I am smart”) is also a poor motivator. Able students, too, need to believe that it is their effort, not their ability, that leads to academic success. Teachers who emphasize the amount of effort as the cause of success as well as failure and who reward effort rather than ability are more likely to motivate all their students to do their best than are teachers who emphasize ability alone (Goslin, 2003; Schunk, 2016; Yeager & Dweck, 2012). Some formal means of rewarding students for effort rather than ability are the use of rewards for improvement; the use of differentiated instruction, in which the basis of success is progress at the student’s own level; and the inclusion of effort as a component of grading or as a separate grade.

#### Connections 10.6

For more on individualized instruction, see Chapter 9.

should be set up so that earning an A is difficult (but possible) for as many students as feasible, and so that earning a low grade is possible for students who exert little effort. Success must be within the reach, but not the easy reach, of all students.

MyEdLab Self-Check 10.1

## WHAT FACTORS AFFECT STUDENTS’ MOTIVATION?

One of the most important types of motivation for education is **achievement motivation**, or the generalized tendency to strive for success and to choose goal-oriented success/failure activities (Stipek, 2002; Schunk, 2016; Zimmerman & Schunk, 2011). Given a choice of work partners for a complex task, achievement-motivated students tend to choose a partner who is good at the task, whereas affiliation-motivated students (who express the need for love and acceptance) are more likely to choose a friendly partner. Even after they experience failure, achievement-motivated students will persist longer at a task than students who are lower in achievement motivation and thus attribute their failures to lack of effort (an internal but alterable condition), rather than to external factors such as task difficulty or luck. In short, achievement-motivated students want and expect to succeed; when they fail, they redouble their efforts until they do succeed (Wentzel & Wigfield, 2009). Journalist Paul Tough (2011) argued that students need “grit” to overcome life’s many obstacles. **Grit** is a good synonym for *high achievement motivation* (see Hoerr, 2012, 2013; Usher & Kober, 2012).

InTASC 1

Learner  
Development

### Connections 10.7

For more on grading student effort, see Chapter 13.



#### MyEdLab

##### Video Example 10.2

The students in this science class are learning to use a dichotomous key. The teacher fosters achievement motivation as he emphasizes that “success” in this activity is defined by actively engaging in the scientific thought process, not necessarily by finding a “correct” answer.

Not surprisingly, students who are high in achievement motivation tend to succeed at school tasks (Stipek, 2002; Wentzel & Brophy, 2014). However, it is unclear which causes which: Does high achievement motivation lead to success in school, or does success in school (based on ability or other factors) lead to high achievement motivation? Initially, achievement motivation is strongly affected by family experiences (Turner & Johnson, 2003), but after children have been in school for a few years, success and motivation cause each other. Success breeds the desire for more success, which in turn breeds success (Bandura, 2012; Dotterer, McHale, & Crouter, 2009; Wentzel & Wigfield, 2009). In contrast, students who do not experience success in achievement settings will tend to lose the motivation to succeed in such settings and will turn their interest elsewhere (perhaps to social activities, sports, or even delinquent activities in which they might succeed). Achievement motivation tends to diminish over the school years, but it appears that this trend is due both to the nature of children and to the nature of middle and high schools (Dotterer et al., 2009; Hidi & Harackiewicz, 2000; Stipek, 2002).

## Motivation and Goal Orientations

Some students are motivationally oriented toward **learning goals** (also called *task* or *mastery goals*); others are oriented toward **performance goals** (Wentzel & Brophy, 2014; Rolland, 2012; Senko, Hulleman, & Harackiewicz, 2011). Students with learning goals see the purpose of schooling as gaining competence in the skills being taught, whereas students with performance goals primarily seek to gain positive judgments of their competence (and avoid negative judgments). Students who are striving toward learning goals are likely to take difficult courses and to seek challenges. In contrast, students with performance goals focus on getting good grades, taking easy courses, and avoiding challenging situations (Urduan & Mestas, 2006).

**LEARNING VERSUS PERFORMANCE GOALS** Students with learning goals and those with performance goals do not differ in overall intelligence, but their classroom performances can differ markedly. When they run into obstacles, performance-oriented students tend to become discouraged, and their performance is seriously hampered. In contrast, when learning-oriented students encounter obstacles, they tend to keep trying, and their motivation and performance might actually increase (Schunk, 2016; Sins, van Joolingnen, Savelsbergh, & van Hout-Wolters, 2008). Learning-oriented students are more likely to use metacognitive or self-regulated learning strategies (Greene, Miller, Crowson, Duke, & Akey, 2004; Pajares, Britner, & Valiante, 2000; Senko et al., 2011; Usher & Kober, 2012). They are likely to learn more than performance-oriented students of the same abilities (Huang, 2012; Shih, 2005). On the other hand, they may not get grades that reflect their learning, because they may focus their studying on what interests them rather than on what gets them good grades (Hulleman, Durik, Schweigert, & Harackiewicz, 2008; Senko & Miles, 2008). Performance-oriented students who perceive their abilities as low are likely to fall into a pattern of helplessness, for they believe that they have little chance of earning good grades (Senko et al., 2011; Usher & Kober, 2012). There is some evidence that such students are more prone to cheat (Murdock & Anderman, 2006). Learning-oriented students who perceive their ability to be low are concerned with how much they themselves can learn without regard for the performance of others (Senko et al., 2011). Unfortunately, there is evidence that over their years in school, students tend to shift from learning or mastery goals to performance goals (Harackiewicz, Barron, Tauer, & Carter, 2000; Stipek, 2002). However, there is also evidence that teachers who emphasize learning and developing competence (rather than grades) as the goals of the class obtain better learning results from their students (Murayama & Elliot, 2009; Rolland, 2012; Usher & Kober, 2012).

The most important implication of research on learning goals versus performance goals is that you should try to convince students that learning, rather than grades, is the purpose of academic work (Wentzel & Brophy, 2014). This can be done by emphasizing the interest value and practical importance of the material that students are studying and by deemphasizing grades and other rewards. For example, you might say, “Today we’re going to learn about events deep in the earth that cause the fiery eruptions of volcanoes!” rather than “Today we’re going to learn about volcanoes. Pay attention so that you can do well on tomorrow’s test.” In particular, use of highly competitive grading or incentive systems should be avoided. When students perceive that there is

**TABLE 10.2 • Learning Goals, Performance Goals, and Teaching to Develop Learning Goals**

STUDENTS WITH LEARNING GOALS	STUDENTS WITH PERFORMANCE GOALS	TEACHING TO DEVELOP LEARNING GOALS
Value learning for its own sake	Value grades, praise, rank	Increase intrinsic interest; discuss value of knowing and being able to do new things, rather than value of grades
Motivated by challenge, interest	Motivated by doing better than others	Pose difficult, exciting challenges
Errors are part of the learning process	Errors lead to anxiety, loss of self-worth	Refer to honest errors as contributing to learning and growth
Evaluation against students' own standards and value of new knowledge and skills	Evaluation against performance levels of other students	Emphasize value of new knowledge and skills; encourage students to set their own high learning standards
Value process of getting new knowledge and skills, not just the right answer. Value creativity and multiple solutions	Value clear path to a single right answer	Emphasize the process of learning and multiple ways of arriving at good answers or products. Encourage creativity and playfulness in learning
Value working with others and exchanging ideas	Value doing better than others	Use cooperative learning; avoid highly competitive grading

only one standard of success in the classroom and that only a few people can achieve it, those who lack confidence in their ability will be likely to give up in advance (Summers, 2006). Table 10.2 summarizes the differences between the achievement goals of students with learning goals and those of students with performance goals, and summarizes strategies that you can use to promote learning or task goals among students. Studies indicate that the types of tasks that are used in classrooms have a strong influence on students' adoption of learning goals. Tasks that are challenging, meaningful, and related to real life are more likely to lead to learning goals than are other tasks (Cushman, 2006; Darling-Hammond & Ifill-Lynch, 2006; Gregory & Kaufeldt, 2015).

## Learned Helplessness

An extreme form of the motive to avoid failure is called **learned helplessness**, which is a perception that no matter what one does, one is doomed to failure or ineffectuality: "Nothing I do matters." In academic settings, learned helplessness can be related to an internal, stable explanation for failure: "I fail because I'm stupid, and that means I will always fail." Students who experience repeated failures might develop a "defensive pessimism" to protect themselves from negative feedback (Martin, Marsh, & Debus, 2001).

Learned helplessness can arise from inconsistent, unpredictable use of rewards and punishments by parents or teachers—a pattern that can lead students to believe that there is little they can do to be successful. Students with learning disabilities, for example, are more likely than other students to respond to failure with helpless behavior (Pintrich & Schunk, 2002). You can prevent or alleviate learned helplessness by giving students (1) opportunities for success in small steps; (2) immediate feedback; and (3) most important, consistent expectations and follow-through.

## Teacher Expectations and Achievement

On the first day of class, Mr. Erhard called roll. Soon he got to a name that looked familiar. "Wayne Clements?"

"Here!"

"Do you have a brother named Victor?"

"Yes."

"I remember Victor. He was a terror. I'm going to keep my eye on you!"

As he neared the end of the roll, Mr. Erhard saw that several boys were starting to whisper to one another in the back of the room. "Wayne! I asked the class to remain silent while I read the roll. Didn't you hear me? I knew I'd have to watch out for you!"

### Certification Pointer

For a case study on your teacher certification test, you may be required to suggest an appropriate strategy for improving student motivation by training students to attribute their successes to controllable causes, especially effort.

**InTASC 9**

**Professional  
Learning and  
Ethical Practice**

**InTASC 8****Instructional  
Strategies**

## THEORY INTO PRACTICE

### Helping Students Overcome Learned Helplessness

The concept of learned helplessness derives from the theory that students might become academic failures through a conditioning process based on negative feedback from teachers, school experiences, peers, and students themselves. Numerous studies show that when students consistently fail, they eventually give up. They become conditioned to helplessness.

Teachers at both the elementary and secondary levels can help to counter this syndrome in a variety of ways, including attribution training, goal restructuring, self-esteem programs, success-guaranteed approaches, and positive feedback systems. The following general principles are helpful for all students, especially students who have shown a tendency to accept failure (see Jackson, 2011).

1. **Accentuate the positive.** Get to know the student's strengths and then use these as building blocks. Every student has something she or he does well. But be careful that the strength is authentic; don't make up a strength. For example, a student might like to talk a lot but write poorly. Have the student complete assignments by talking rather than writing. As confidence is restored, slowly introduce writing.
2. **Eliminate the negative.** Do not play down a student's weaknesses, but focus on an attainable path to success. In the preceding example, talk to the student about problems with writing. Then have the student develop a plan to improve on the aspects of his or her writing that are causing most trouble. Discuss the plan, and together make up a contract about how the plan will be completed.
3. **Go from the familiar to the new, using advance organizers or guided discovery.** Some students have difficulties with concepts, skills, or ideas with which they are not familiar. Also, students relate better to lessons that are linked to their own experiences. For example, a high school math teacher might begin a lesson with a math problem that students might face in the real world, such as calculating the sales tax when purchasing a digital tablet. Further, the teacher can ask students to bring to class math problems they have encountered outside of school. The whole class can become involved in solving a student's math problem.
4. **Create challenges in which students actively create problems and solve them using their own knowledge and skills.**

This dialogue illustrates how teachers can establish expectations for their students and how these expectations can be self-fulfilling. Mr. Erhard doesn't know it, but Wayne is generally a well-behaved, conscientious student, quite unlike his older brother, Victor. However, because of his experience with Victor, Mr. Erhard expects that he will have trouble with Wayne. When he sees several boys whispering, it is Wayne he singles out for blame, confirming for himself that Wayne is a troublemaker. After a few episodes of this treatment, we can expect Wayne to begin playing the role Mr. Erhard has assigned to him.

Research on teachers' expectations for their students has generally found that students live up (or down) to the expectations that their teachers have for them (Hinnant, O'Brien, & Ghazarian, 2009; Jussim & Harber, 2005; Rubie-Davies, 2007, 2008), particularly in the younger grades and when teachers know relatively little about their students' actual achievement levels. A Dutch study found that teachers' expectations for their 12-year-olds still had an effect on the students'

achievement (controlling for their actual ability) five years later (de Boer, Bosker, & van der Werf, 2010). Furthermore, there is evidence that students in schools whose teachers have high expectations achieve more than those in other schools (Marks, Doane, & Secada, 1998). Of course, students' expectations for themselves are at least as important as those of their teachers. One study found that students whose self-perceptions exceeded their current performance later tended to improve in grades, whereas those whose self-perceptions were lower than their performance tended to drop in grades (Anderman, Anderman, & Griesinger, 1999).

**COMMUNICATING POSITIVE EXPECTATIONS** It is important to communicate to students the expectation that they can all learn (Marzano, 2010). Obviously, it is a bad idea to state the contrary—that a particular student cannot learn—and few teachers would explicitly do so. There are several implicit ways to communicate positive expectations of your students (or avoid negative ones).

1. **Wait for students to respond.** Teachers tend to wait longer for answers from students for whom they have high expectations than from other students. Longer wait times may communicate high expectations and increase student achievement (Stipek, 2002; Wentzel & Brophy, 2014).
2. **Avoid unnecessary achievement distinctions among students.** Assessment results and grades should be a private matter between students and their teacher, not public information. Students usually know who is good in school and who is not, but you can still successfully communicate the expectation that all students, not only the most able ones, are capable of learning (Weinstein, Madison, & Kuklinski, 1995).
3. **Treat all students equally.** Call on students at all achievement levels equally often, and spend equal amounts of time with them (Marzano, 2010). In particular, guard against bias.

## Anxiety and Achievement

Anxiety is a constant companion of education. Every student feels some anxiety at some time while in school; but for certain students, anxiety seriously inhibits learning or performance, particularly on tests (Cassady & Johnson, 2002).

The main source of anxiety in school is the fear of failure and, with it, loss of self-esteem (Pintrich & Schunk, 2002). Low achievers are particularly likely to feel anxious in school, but they are by no means the only ones. We all know very able, high-achieving students who are also very anxious, maybe even terrified to be less than perfect at any school task.

Anxiety can block school performance in several ways. Anxious students might have difficulty learning in the first place, difficulty using or transferring knowledge they do have, and difficulty demonstrating their knowledge on tests (Bandalos, Yates, & Thorndike-Christ, 1995). Anxious students are likely to be overly self-conscious in performance settings, a feeling that distracts attention from the task at hand (Tobias, 1992). One particularly common form of debilitating anxiety is math anxiety. Many students (and adults) simply freeze up when given math problems, particularly word problems (Everson, Tobias, Hartman, & Gourgey, 1993).

You can apply many strategies to reduce the negative impact of anxiety on learning and performance. Clearly, creating a classroom climate that is accepting, comfortable, and noncompetitive helps. Giving students opportunities to correct errors or improve their work before handing it in also helps anxious children, as does providing clear, unambiguous instructions (Wigfield & Eccles, 1989). In testing situations, teachers have many ways to help anxious students do their best. You can avoid time pressure, giving students plenty of time to complete a test and check their work. Tests that begin with easy problems and only gradually introduce more difficult ones are better for anxious students, and tests with standard, consistent answer formats also help such students. Test-anxious children can be trained in test-taking skills and relaxation techniques, and these can have a positive impact on their test performance (Spielberger & Vagg, 1995).

### MyEdLab Self-Check 10.2

### Connections 10.8

For more on grouping students, see Chapter 9.

### Connections 10.9

Programs designed to train test-anxious children in test-taking skills are discussed in Chapter 14.



### MyEdLab

#### Video Example 10.3

Textbook author Bob Slavin tells a story about how expectations affected a student named Mary, who later became a teacher and sports coach. Why was Mary unable to use the same strategies with her students and athletes that her parents had used with her? What sorts of motivational strategies have been most effective in your own life, and which might you expect to use most frequently in your own career?

## HOW CAN TEACHERS INCREASE STUDENTS' MOTIVATION TO LEARN?



*“The school board decided not to raise teachers’ salaries. We didn’t want to undermine their intrinsic motivation.”*

Learning takes work. Euclid, a Greek mathematician who lived around 300 B.C. and wrote the first geometry text, was asked by his king whether there were any shortcuts he could use to learn geometry, as he was a very busy man. “I’m sorry,” Euclid replied, “but there is no royal road to geometry.” The same is true of every other subject: Students get out of any course of study only what they put into it.

Researchers have evaluated numerous strategies to improve motivation to learn based on the theories discussed above, such as methods to help students see that success is due to effort rather than intelligence (Dweck, 2006). Methods of this kind have generally been successful in increasing motivation and achievement (Lazowski & Hulleman, 2016).

The remainder of this chapter discusses the means by which students can be motivated to exert the effort that learning requires.

### Intrinsic and Extrinsic Motivation

Sometimes a course of study is so fascinating and useful to students that they are willing to do the work required to learn the material with no incentive other than the interest level of the material itself. For example, many students would gladly take auto mechanics or photography courses and work hard in them, even if the courses offered no credit or grades. For these students the favorite subject itself has enough **intrinsic incentive** value to motivate them to learn. Other students love to learn about particular topics such as sports, insects, dinosaurs, or famous people in history and need little encouragement or reward to do so (Gottfried & Fleming, 2001; Schraw, Flowerday, & Lehman, 2001). Students who have a strong “future time perspective” (i.e., are willing to do things today that may benefit them in the future) are often particularly motivated to learn, even without immediate incentives (Husman & Lens, 1999).

However, much of what must be learned in school is not inherently interesting or useful to most students in the short run. Students receive about 900 hours of instruction every year, and intrinsic interest alone will not keep them enthusiastically working day in and day out. In particular, students’ intrinsic motivation generally declines from early elementary school through secondary school (Gottfried & Fleming, 2001; Sethi, Drake, Dialdin, & Lepper, 1995). It also declines over the course of each school year (Corpus, McClintic–Gilbert, & Hayenga, 2009). For this reason, schools apply a variety of **extrinsic incentives**, rewards for learning that are not inherent in the material being learned (Wentzel & Brophy, 2014). Extrinsic rewards range from praise to grades to recognition to prizes or other rewards.

In the vignette at the beginning of this chapter, Cal Lewis tried to enhance both intrinsic and extrinsic motivation. His simulation of the Constitutional Convention was intended to arouse students’ intrinsic interest in the subject, and his ratings of students’ presentations and his feedback at the end of each period were intended to provide extrinsic motivation.

**LEPPER’S EXPERIMENT ON THE IMPACT OF REWARDS ON MOTIVATION** An important question in research on motivation concerns whether providing extrinsic rewards diminishes intrinsic interest in an activity. In a classic experiment exploring this topic, Lepper and colleagues (1973) gave preschoolers an opportunity to draw with felt-tip markers, which many of them did quite enthusiastically. Then the researchers randomly divided the children into three groups: One group was told that its members would receive a reward for drawing a picture for a visitor (a Good Player Award), one group was given the same reward as a surprise (not dependent on the children’s drawing), and one group received no reward. Over the next 4 days, observers recorded the children’s free-play activities. Children who had received a reward for drawing spent about half as much time drawing with felt-tip markers as did those who had received the surprise reward and those who got no reward. The authors suggested that promising extrinsic rewards for an activity that is intrinsically interesting might undermine intrinsic interest by inducing children to expect a reward for doing what they had previously done for nothing. A later study (Greene & Lepper, 1974) found that simply telling children that they would be watched (through a one-way mirror) had an undermining effect similar to that of a promised reward.

**DO REWARDS DESTROY INTRINSIC MOTIVATION?** In understanding the results of these studies, it is important to recall the conditions of the research. The students who were chosen for the studies showed an intrinsic interest in using marking pens. Those who did not were excluded from the experiments. Also, drawing with felt-tip pens does not resemble most school tasks. Many children love to draw at home, but few, even those who are most interested in school subjects, would independently study grammar and punctuation, work math problems, or learn the valences of chemical elements. Further, many of our most creative and self-motivated scientists (for example) were frequently rewarded as students with grades, science fair prizes, and scholarships for doing science, and virtually all successful artists have been rewarded at some point for their artistic creations. Research on older students doing more school-like tasks has generally failed to replicate the results of the Lepper and colleagues (1973) experiment (Cameron & Pierce, 1994, 1996; Eisenberger & Cameron, 1998). In fact, the use of rewards more often increases intrinsic motivation, especially when rewards are contingent on the quality of performance rather than on mere participation in an activity, when the rewards are seen as recognition of competence (Rosenfield, Folger, & Adelman, 1980), when the task in question is not very interesting, or when the rewards are social (e.g., praise) rather than material (Cameron, 2001; Cameron, Pierce, Banko, & Gear, 2005; Lepper, 1983; Ryan & Deci, 2000). Cameron (2001) summarizes the situation in which extrinsic rewards undermine intrinsic interest as follows: “A negative effect occurs when a task is of high interest, when the rewards are tangible and offered beforehand, and when the rewards are delivered without regard to success on the task or to any specified level of performance” (p. 40). This is a very narrow set of conditions, characterized by Bandura (1986, p. 246) as “of no great social import because rewards are rarely showered on people regardless of how they behave.” However, Deci, Koestner, and Ryan (2001), while acknowledging that there are many forms of extrinsic rewards that have a positive or neutral impact on motivation, nevertheless argue that “the use of rewards as a motivational strategy is clearly a risky proposition, so we continue to argue for thinking about educational practices that will engage students’ interest and support the development of their self-regulation” (2001, p. 50).

The research on the effects of extrinsic rewards on intrinsic motivation does counsel caution in the use of material rewards for engaging in tasks that students would do without rewards (see Lepper, 1998; Sansone & Harackiewicz, 2000). You should attempt to make everything you teach as intrinsically interesting as possible and should avoid handing out material rewards when they are unnecessary, but you should not refrain from using extrinsic rewards when they are needed. Often, extrinsic rewards may be necessary to get students started in a learning activity but may be phased out as students come to enjoy the activity and succeed at it (Goodwin, 2012a; Stipek, 2002; Wentzel & Brophy, 2014). Also, remember that in any given class, there are students who are intrinsically motivated to do a given activity and those who are not. To ensure that all students learn, strategic use of both intrinsic and extrinsic motivators is likely to be necessary.

### Certification Pointer

On your teacher certification test, you should recognize the value of intrinsic motivation in promoting students’ life-long growth and learning.

## Enhancing Intrinsic Motivation

Classroom instruction should enhance intrinsic motivation as much as possible. Increasing intrinsic motivation is always helpful for learning, regardless of whether extrinsic incentives are also in use (Kafele, 2013; Vansteenkiste, Lens, & Deci, 2006). This means that you must try to get your students interested in the material you are presenting and then present it in an appealing way that both satisfies and increases students’ curiosity about the material itself. A discussion of some means of doing this follows (see Wentzel & Brophy, 2014; Stipek, 2002).

**CREATING A SUPPORTIVE CLASSROOM CLIMATE** One way to build intrinsic motivation to learn is to create a classroom climate that is warm, accepting, and positive (Jackson & Zmuda, 2014; Marzano, 2011; Wentzel, 2010; Wormeli, 2014). In such classrooms, students work hard because they want to please a valued teacher, and they feel safe in trying out their ideas and taking intellectual risks. Classroom strategies that can be adapted to the needs of all students and communicate high expectations, with support for all students to reach high levels, may also add to intrinsic motivation (McCombs, 2010), as may classrooms that value cultural diversity and make all students feel welcome and provided for (Curwin, 2010; Kumar & Maehr, 2010). There is evidence that programs intended to improve social-emotional climate in the classroom also improve learning (e.g., Brown, Jones, LaRusso, & Aber, 2010).

**AROUSING INTEREST** It is important to convince students of the importance and interest level of the material that is about to be presented and to show (if possible) how the knowledge to be gained will be useful to students (Renninger & Hidi, 2011; Wentzel & Brophy, 2014). For example, intrinsic motivation to learn a lesson on percents might be increased by introducing the lesson as follows:

Today we will begin a lesson on percents. Percents are important in our daily lives. For example, when you buy something at the store and a salesperson figures the sales tax, he or she is using percents. When we leave a tip for a waiter or waitress, we use percents. We often hear in the news things like “Prices rose seven percent last year.” In a few years, many of you will have summer jobs, and if they involve handling money, you’ll probably be using percents all the time.

Introducing lessons with examples relating the material to students’ cultures can be particularly effective. For example, in introducing astronomy to a class with many Latino children, you could say, “Thousands of years ago, people in Mexico and Central America had calendars that accurately predicted the movement of the moon and stars for centuries into the future. How could they do this? Today we will learn about how planets, moons, and stars move in predictable paths.” The purpose of these statements is to arouse student curiosity about the lesson to come, thereby enhancing intrinsic motivation to learn the material (Vacca, 2006).

Another way to enhance students’ intrinsic interest is to give them some choice about what they will study or how they will study it (Stipek, 2002; Wentzel & Brophy, 2014). Choices need not be unlimited to be motivational. For example, students might be given a choice of writing about ancient Athens or Sparta, or a choice of working independently or in pairs.

**MAINTAINING CURIOSITY** A skillful teacher uses a variety of means to further arouse or maintain curiosity in the course of the lesson (Goodwin, 2014; Wormeli, 2014). Science teachers, for instance, often use demonstrations that surprise or baffle students and induce them to want to understand why. A floating dime makes students curious about the surface tension of liquids. “Burning” a dollar bill covered with an alcohol–water solution (without harming the dollar bill) certainly increases curiosity about the heat of combustion. Guthrie and Cox (2001) found that giving students hands-on experience with science activities greatly increased their learning from books on related topics. Encouraging students to be curious, and to ask themselves, their peers, and their teachers questions, adds to motivation (Engel, 2013).

Less dramatically, surprising or challenging students with a problem they can’t solve with their current knowledge can arouse curiosity, and therefore intrinsic motivation (see Bottge, 2001). A seventh-grade teacher in England used this principle in a lesson on equivalent fractions. First, he had his students halve and then halve again  $\frac{8}{13}$  and  $\frac{12}{20}$ . Working in pairs they instantly agreed on  $\frac{4}{13}$  and  $\frac{2}{13}$ , and  $\frac{6}{20}$  and  $\frac{3}{20}$ . Then he gave them  $\frac{13}{20}$ . After a moment of hesitation, students came back with  $6 \frac{1}{20}$  and then  $3 \frac{1}{4} / 20!$  “Crikey!” he said. “All these fractions inside fractions are making me nervous! Isn’t there some other way we can do this?” “Round off?” suggested one student. “Use decimals?” suggested another. Finally, after much discussion and argument, the students realized that they could use their knowledge about equivalent fractions to find the solutions:  $\frac{13}{40}$  and  $\frac{13}{80}$ . Getting the students into a familiar pattern and then breaking that pattern excited the whole class, engaging them far more effectively than would have been possible by simply teaching the algorithm in the first place. The element of surprise, challenging the students’ current understanding, made them intensely curious about an issue they’d never before considered.

**SETTING CHALLENGING TASKS AND AMBITIOUS GOALS** The U.S. Marines like to say, “The difficult we do immediately. The impossible takes a little longer.”

This is the spirit you want to build in your students. No one is excited about doing routine or easy tasks, or attaining modest goals. Students can be highly motivated by scary-looking tasks, as long as you believe in them and guarantee that you and their peers will help when problems arise. They can be excited by impossible-looking goals, as long as they can see a step-by-step path to attaining them (Jackson & Zmuda, 2014; Kafele, 2013; Pink, 2009).

Never say, “This is easy.” Instead, communicate that “this is tough but I know you can do it.” There is a big difference!

### Connections 10.10

The importance of student interest in creative problem solving and other constructivist approaches is discussed in Chapter 8.

### Connections 10.11

The importance of student interest in lesson content and presentation is discussed in Chapter 7.

**USING A VARIETY OF INTERESTING PRESENTATION MODES** The intrinsic motivation to learn something is enhanced by the use of interesting materials, as well as by variety in mode of presentation. For example, you can maintain student interest in a subject by alternating use of videos, guest speakers, demonstrations, and so on, although the use of each resource must be carefully planned to be sure it focuses on the course objectives and complements the other activities. Use of computer games can enhance most students' intrinsic motivation to learn (Clark et al., 2013; Patterson, 2012). Among the things that make materials interesting are the use of emotional content (e.g., danger, love, money, heartbreak, disaster), concrete rather than abstract examples, cause-and-effect relationships, and clear organization (Jetton & Alexander, 2001; Schraw et al., 2001; Wade, 2001).

One excellent means of increasing interest in a subject is to use games or simulations (Clark et al., 2013; Phillips & Popovic, 2012; Marzano, 2010). A simulation, or role play, is an exercise in which students take on roles and engage in activities appropriate to those roles. Cal Lewis used a simulation to teach students about the Constitutional Convention. Programs exist that simulate many aspects of government; for example, students may take roles as legislators who must negotiate and trade votes to satisfy their constituents' interests or take the roles of economic actors (farmers, producers, consumers) who run a mini-economy. Creative teachers have long used simulations that they designed themselves. For example, you can have students write their own newspaper; design, manufacture, and market a product; or set up and run a bank. In particular, giving adolescents adult-like roles (in simulations) can increase their intrinsic motivation and engagement (Allen & Allen, 2010).

Nonsimulation games can also increase motivation to learn a given subject. The spelling bee is a popular example of a nonsimulation game. Teams–Games–Tournament, or TGT (Slavin, 1995a), uses games that can be adapted to any subject. Team games are usually better than individual games. A form of cooperative learning (recall Chapter 8), team games provide an opportunity for teammates to help one another and avoid one problem of individual games—that of more-able students consistently winning. If all students are put on mixed-ability teams, all have a good chance of success.

**HELPING STUDENTS MAKE CHOICES AND SET THEIR OWN GOALS** One fundamental principle of motivation is that people work harder for goals that they themselves set than for goals set for them by others (Anderman et al., 2013; Azzam, 2014; Ryan & Deci, 2000). For example, a student might set a minimum number of books she expects to read at home or a score she expects

**InTASC 3**[Learning Environments](#)**InTASC 8**[Instructional Strategies.](#)

## 21ST CENTURY LEARNING

### Intrinsic Motivation

In traditional teaching, it has long been necessary to use extrinsic incentives, such as grades and praise, to motivate students to do their best. Incentives are still likely to be important in the future, but new classroom teaching technologies can help increase intrinsic motivation for learning. Video clips, animations, demonstrations, and interactive technologies can add variety and fun to lessons and give students more active roles. This is not only useful for learning school subjects but also prepares students for a world in which they will increasingly need to take responsibility for motivation themselves and maintain high productivity in less structured, more flexible workplaces.

#### QUESTION

- Given what you now know about intrinsic and extrinsic motivation, what are some ways you might motivate students to learn about technology applications?

to attain on an upcoming quiz. At the next goal-setting conference you might discuss student attainment of (or failure to attain) goals and set new goals for the following week. During these meetings you might help students learn to set ambitious but realistic goals and should praise them for setting and then achieving their goals. Goal-setting strategies of this kind have been found to increase students' academic performance and self-efficacy (Page-Voth & Graham, 1999; Shih & Alexander, 2000). Similarly, there is much evidence that children are more highly motivated to engage in activities that they choose, even if the choice is just between two alternatives (Patall et al., 2008; Vokoun & Bigelow, 2008).

**PRESENTATIONS** Did you ever notice how hard students work to prepare for a play, a concert, or a science fair exhibit? They want to do their very best when there is an audience. You can use this in smaller ways (see Bergin, Bergin, Van Dover, & Murphy, 2013). For example, students might prepare and present group multimedia reports, brief plays, and other performances designed to inform and delight their audiences. These have to be designed carefully to avoid taking too much time. For example, groups might prepare a two-minute summary of a more elaborate report, with only one or two groups (chosen at random or chosen on the basis of the two-minute summary) getting a chance to show off their whole report. Alternatively, groups might each perform for another group rather than for the whole class, while you circulate among groups.

**CAREER RELEVANCE** Students are likely to work harder if they see a connection between course content and desirable careers, or other important life achievements (Fisher & Frey, 2014a). An evaluation of a program called CareerStart, an approach that emphasizes the career relevance of course content in middle school, found positive effects on math performance (Woolley et al., 2013).

## Principles for Providing Extrinsic Incentives to Learn

Teachers should always try to enhance students' intrinsic motivation to learn academic materials, but at the same time, they should not hesitate to also use extrinsic incentives if these are needed (Borich, 2014; Levitt et al., 2012; Schunk, 2016; Wentzel & Brophy, 2014). Not every subject is intrinsically interesting to all students, and students must be motivated to do the hard work necessary to master difficult subjects. The following sections discuss a variety of incentives that can help motivate students to learn academic material.

**EXPRESSING CLEAR EXPECTATIONS** Students need to know exactly what they are supposed to do, how they will be evaluated, and what the consequences of success will be. Often, students' failures on particular tasks stem from confusion about what they are being asked to do (Jackson & Zmuda, 2014; Wentzel & Brophy, 2014). Communicating clear expectations is important. For example, you might introduce a writing assignment as follows:

Today, I'd like you all to write a composition about what Thomas Jefferson would think of government in the United States today. I expect your compositions to be about six pages long, and I want them to compare and contrast the plan of government laid out by the nation's founders with the way government actually operates today. Your compositions will be graded on the basis of your ability to describe similarities and differences between the structure and function of the U.S. government in Thomas Jefferson's time and today, as well as on the originality and clarity of your writing. This will be an important part of your 6 weeks' grade, so I expect you to do your best!

Note that you are clear about what students are to write, how much material is expected, how the work will be evaluated, and how important the work will be for the students' grades. This clarity assures students that efforts directed at writing a good composition will pay off. If you had just said, "I'd like you all to write a composition about what Thomas Jefferson would think about government in the United States today," students might write the wrong thing, write too much or too little, or perhaps emphasize the if-Jefferson-were-alive-today aspect of the assignment rather than the comparative-government aspect. They would be unsure how much importance you intended to place on the mechanics of the composition as compared to its content. Finally, they would have no way of knowing how their efforts would pay off, lacking any indication of how much emphasis you would give to the compositions in computing grades.

A study by Graham, MacArthur, and Schwartz (1995) showed the importance of specificity. Low-achieving fifth- and sixth-graders were asked to revise compositions either to "make

[your paper] better” or to “add at least three things that will add information to your paper.” The students with the more specific instructions wrote higher-quality, longer revisions because they had a clearer idea of exactly what was being asked of them.

**PROVIDING CLEAR FEEDBACK** The word **feedback** means information on the results of one’s efforts. The term has been used throughout this text to refer both to information students receive on their performance and to information teachers obtain on the effects of their instruction. Feedback can serve as an incentive. Research on feedback has found that provision of information on the results of one’s actions can be an adequate reward in many circumstances. However, to be an effective motivator, feedback must be clear, must be specific, and must be provided soon after performance (Schunk, 2016; Wentzel & Brophy, 2014). This is important for all students, but especially for young ones. For example, praise for a job well done should specify what the student did well:

- “Good work! I like the way you used the guide words in the dictionary to find your target words.”
- “I like that answer. It shows you’ve been thinking about what I’ve been saying about freedom and responsibility.”
- “This is an excellent essay. It started with a statement of the argument you were going to make and then supported the argument with relevant information. I also like the care you took with punctuation and word usage.”

Specific feedback is both informative and motivational (Schunk et al., 2008). It tells students what they did right, so that they will know what to do in the future, and it helps give them an effort-based attribution for success (“You succeeded because you worked hard”). In contrast, if students are praised or receive a good grade without any explanation, they are unlikely to learn from the feedback what to do next time to be successful, and they might form an ability attribution (“I succeeded because I’m smart”) or an external attribution (“I must have succeeded because the teacher likes me, the task was easy, or I lucked out”). As noted earlier in this chapter, effort attributions are most conducive to continuing motivation (Pintrich & Schunk, 2002). Similarly, feedback about mistakes or failures can add to motivation if it focuses only on the performance itself (not on students’ general abilities) and if it is alternated with success feedback.

**PROVIDING IMMEDIATE FEEDBACK** Immediacy of feedback is also very important (Curwin, 2014; Sparks, 2012; Zimmerman & Schunk, 2011). If students complete a project on Monday and don’t receive any feedback on it until Friday, the informational and motivational value of the feedback will be diminished. First, if they made errors, they might continue all week making similar errors on related material, which might have been averted by feedback on the performance. Second, a long delay between behavior and consequence confuses the relationship between the two. Young students, especially, might have little idea why they received a particular grade if the performance on which the grade is based occurred several days earlier.

**PROVIDING FREQUENT FEEDBACK** Feedback should be delivered frequently to students to maintain their best efforts (Perks & Middleton, 2014). For example, it is unrealistic to expect most students to work hard for 6 or 9 weeks in hopes of improving their grade unless they receive frequent feedback. Research in the behavioral learning theory tradition has established that no matter how powerful a reward is, it may have little impact on behavior if it is given infrequently; small, frequent rewards are more effective incentives than are large, infrequent ones. Research on frequency of testing has generally found that it is a good idea to give frequent brief quizzes to assess student progress, rather than infrequent long tests (Borich, 2014). Research also indicates the importance of asking many questions in class so that students can gain information about their own level of understanding and can receive reinforcement (such as praise and recognition) for paying attention to lessons.

**INCREASING THE VALUE AND AVAILABILITY OF EXTRINSIC MOTIVATORS** Expectancy theories of motivation, discussed earlier in this chapter, hold that motivation is a product of the value an individual attaches to success and the individual’s estimate of the likelihood of success (see Wigfield et al., 2009). One implication of this is that students must value incentives if they are to be effective motivators. Some students are not particularly interested in teacher praise or grades but might value notes sent home to their parents, a little extra recess time, or a special privilege in the classroom.

### Connections 10.12

Feedback is also discussed in Chapter 7 and Chapter 13.

### InTASC 6

#### Assessment



#### MyEdLab

#### Video Example 10.4

As this teacher helps his student develop an art portfolio for review by the College Board, he provides feedback indicating what the student has done well and then offers suggestions for making the portfolio better. He fosters intrinsic motivation as he encourages the student to reflect on his own performance and make an effort to improve.

### Connections 10.13

For grading methods that recognize progress and effort, see Chapter 13.

Another implication of expectancy theory is that even though all students should have a chance to be rewarded if they do their best, no student should have an easy time achieving the maximum reward. This principle is violated by traditional grading practices, because some students find it easy to earn A's and B's, whereas others believe that they have little chance of academic success no matter what they do. In this circumstance, neither high achievers nor low achievers are likely to exert their best efforts. This is one reason why it is important to reward students for effort, for doing better than they have done in the past, or for making progress, rather than only for getting a high score. For example, students can build a portfolio of compositions, projects, reports, or other work and can then see how their work is improving over time. Not all students are equally capable of achieving high scores, but all are equally capable of exerting effort, exceeding their own past performance, or making progress, so these are often better, more equally available criteria on which to base reward (see Chapter 13).

### Connections 10.14

For more on student portfolios, see Chapter 13.

## Using Praise Effectively

### Connections 10.15

For more on the use of praise as a reinforcer, see Chapter 11.

Praise serves many purposes in classroom instruction, but it is primarily used to reinforce appropriate behaviors and to give feedback to students on what they are doing right. Overall, it is a good idea to use praise frequently, especially with young children and in classrooms with many low-achieving students (Wentzel & Brophy, 2014). However, what is more important than the amount of praise given is the way it is given. Praise is effective as a classroom motivator to the extent that it is contingent, specific, and credible (Sutherland, Wehby, & Copeland, 2000). **Contingent praise** depends on student performance of well-defined behaviors. For example, if you say, "I'd like you all to open your books to page 92 and work problems one to ten," then give praise only to the students who follow directions. Praise should be given only for appropriate behaviors.

*Specificity* means to praise students for specific behaviors, not for general "goodness." For example, you might say, "Susan, I'm glad you followed my directions to start work on your composition," rather than "Susan, you're doing great!"

When praise is *credible*, it is given sincerely for good work. Wentzel and Brophy (2014) note that when praising low-achieving or disruptive students for good work, teachers often contradict their words with tone, posture, or other nonverbal cues. In addition to contingency, specificity, and credibility, Wentzel and Brophy's list includes several particularly important principles that reinforce topics discussed earlier in this chapter. For example, guidelines 7 and 8 emphasize that praise should be given for good performance relative to a student's usual level of performance. That is, students who usually do well should not be praised for a merely average performance, but students who usually do less well should be praised when they do better. This is related to the principle of accessibility of reward discussed earlier in this chapter; rewards should be neither too easy nor too difficult for students to obtain. Guideline 9 emphasizes the importance of praising effort, rather than intelligence or other factors that students do not control (see Dweck, 2007; Yeager & Dweck, 2012).

### Certification Pointer

When responding to a case study on your certification test, you should know that providing praise that is contingent, specific, and credible can increase student motivation.

## Teaching Students to Praise Themselves

There is increasing evidence that students can learn to praise themselves and that this increases their academic success. For example, children can learn to mentally give themselves a pat on the back when they finish a task or to stop at regular intervals to notice how much they have done. This strategy is a key component of self-regulated learning (Duckworth et al., 2016; Germeroth & Day-Hess, 2013; Zimmerman & Schunk, 2011; Zimmerman, 2013).

### MyEdLab Self-check 10.3

**MyEdLab Video Analysis Tool 10.1** Go to MyEdLab and click on the Video Analysis Tool to access the exercise "Motivating students to pursue learning goals: attention."

**MyEdLab Video Analysis Tool 10.2** Go to MyEdLab and click on the Video Analysis Tool to access the exercise "Motivating students to pursue learning goals: achievement value."

**MyEdLab Video Analysis Tool 10.3** Go to MyEdLab and click on the Video Analysis Tool to access the exercise "Motivating students to pursue learning goals: expectancy."

**MyEdLab Video Analysis Tool 10.4** Go to MyEdLab and click on the Video Analysis Tool to access the exercise “Motivating students to pursue learning goals: control.”

**MyEdLab Video Analysis Tool 10.5** Go to MyEdLab and click on the Video Analysis Tool to access the exercise “Motivating students to pursue learning goals: attribution.”

## SUMMARY

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### What Is Motivation?

Motivation is an internal process that activates, guides, and maintains behavior over time. There are different kinds, intensities, aims, and directions of motivation.

### What Are Some Theories of Motivation?

In behavioral learning theory, motivation is a consequence of reinforcement. However, the value of a reinforcer depends on many factors, and the strength of motivation may be different in different students.

In Maslow’s human needs theory, which is based on a hierarchy of needs, people must satisfy their lower-level (deficiency) needs before they will be motivated to try to satisfy their higher-level (growth) needs. Maslow’s concept of the need for self-actualization, the highest need, is defined as the desire to become everything one is capable of becoming.

Attribution theory seeks to understand people’s explanations for their success or failure. A central assumption is that people will attempt to maintain a positive self-image; when good things happen, people attribute them to their own abilities, whereas they tend to attribute negative events to factors beyond their control. Locus of control might be internal (success or failure is based on personal effort or ability) or external (success or failure is the result of luck or task difficulty). Students who are self-regulated learners perform better than those who are externally motivated. Self-regulated learners consciously plan and monitor their learning and thus retain more.

Expectancy theory holds that a person’s motivation to achieve a goal depends on the product of that person’s estimation of his or her chance of success and the value he or she places on success. Motivation should be at a maximum at moderate levels of probability of success. An important educational implication is that learning tasks should be neither too easy nor too difficult.

### How Can Achievement Motivation Be Enhanced?

You can emphasize learning goals and positive or empowering attributions. Students with learning goals see the purpose of school as gaining knowledge and competence; these students tend to have higher motivation to learn than students whose performance goals are positive judgments and good grades. Use special programs such as attribution training to help students out of learned helplessness, in which students feel that they are doomed to fail despite their actions. Your expectations significantly affect students’ motivation and achievement. You can communicate positive expectations for student learning and for reduced anxiety.

### How Can Teachers Increase Students’ Motivation to Learn?

An incentive is a reinforcer that people can expect to receive if they perform a specific behavior. Intrinsic incentives are aspects of certain tasks that in themselves have enough value to motivate students to do the tasks on their own. Extrinsic incentives include grades, gold stars, and other rewards. You can enhance intrinsic motivation by arousing students’ interest, stoking curiosity, using a variety of presentation modes, and letting students set their own goals. Ways to offer extrinsic incentives include stating clear expectations; giving clear, immediate, and frequent feedback; and increasing the value and availability of rewards. Classroom rewards include praise, which is most effective when it is contingent, specific, and credible.

## THE INTENTIONAL TEACHER

### Using What You Know about Motivation to Improve Teaching and Learning

Intentional teachers know that, although students might be motivated by different incentives and to varying degrees, every student is motivated. They understand that many elements of motivation can be influenced by the teacher, and they capitalize on their ability to unearth and direct student motivation. They provide instruction that helps students find meaning in learning and in taking pride in their own accomplishments.

- They do what they can to ensure that students' basic needs for comfort and security are met so that they can devote their energies to learning.
- They constantly reinforce the idea that success in school and life is based on effort, which is under the students' own control, not on innate characteristics such as intelligence.
- They teach students to self-regulate by giving them opportunities to do work on their own and by teaching learning strategies such as goal-setting, self-evaluation, and self-reinforcement.
- They express positive expectations for all students and plan how they will help students who struggle to meet those expectations. They avoid making comparisons among students that communicate higher expectations for some than for others.
- They assign tasks that are difficult and challenging for all, but not impossibly so. They set tasks that students will feel proud to accomplish and that they believe are worth their efforts.
- They try to enhance intrinsic motivation to learn by making content interesting, relevant to students, useful, and engaging.
- They provide extrinsic incentives to learn when these are necessary, providing incentives that are symbolic rather than tangible whenever possible.
- They use praise to identify what students have done to deserve praise and to recognize effort. They teach students to recognize their own success and praise themselves, rather than depending on teachers or others to do so.



MyEdLab

#### Application Exercise 3.1

In the Pearson etext, watch a classroom video. Then use the guidelines in “The Intentional Teacher” to answer a set of questions that will help you reflect on and understand the teaching and learning presented in the video.

## KEY TERMS

Review the following key terms from the chapter.

achievement motivation 255  
 attribution theory 251  
 contingent praise 266  
 deficiency needs 250  
 expectancy theory 254  
 expectancy–valence model 254

extrinsic incentive 260  
 feedback 265  
 grit 255  
 growth needs 250  
 intrinsic incentive 260  
 learned helplessness 257

learning goals 256  
locus of control 252  
mindset 253

motivation 248  
performance goals 256  
self-actualization 251

## SELF-ASSESSMENT: PRACTICING FOR LICENSURE

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Directions: The chapter-opening vignette addresses indicators that are often assessed in state licensure exams. Reread the chapter-opening vignette, and then respond to the following questions.

1. According to behavioral learning theorists, why are Cal Lewis's students motivated to learn about the Constitutional Convention?
  - a. To obtain reinforcers
  - b. To satisfy growth needs
  - c. To eliminate deficiency needs
  - d. To maximize expectancy effects
2. Mr. Lewis's students see the purpose of lessons about the Constitutional Convention gaining information about the history of the United States. What type of goal orientation is this?
  - a. Performance goal
  - b. Learning goal
  - c. Expectancy goal
  - d. Self-regulated goal
3. Beth Andrews, a shy girl in Mr. Lewis's class, proposes elements of the Bill of Rights to the convention members. If Beth has an internal locus of control, she is most likely to attribute her successful presentation to which of the following factors?
  - a. The presentation requirements being easy
  - b. Favoritism by the teacher
  - c. Careful preparation
  - d. Good luck
4. Mr. Lewis wants his students to work hard regardless of their ability level or the difficulty of the task. What type of attributions will he attempt to instill in his students?
  - a. Internal-stable
  - b. Internal-unstable
  - c. External-stable
  - d. External-unstable
5. Under what circumstances is it most important for Mr. Lewis to avoid the use of external incentives?
  - a. When students are doing challenging work
  - b. When the task communicates feedback about students' competence
  - c. When students are motivated to do the work without extrinsic incentives
  - d. When students have experienced a great deal of failure
6. Analyze Mr. Lewis's lesson and his students' willingness to participate from the perspective of each of the four theories of motivation presented in the chapter: behavioral, human needs, attribution, and expectancy.
7. Describe ways in which you can increase students' motivation to learn.

**MyEdLab** Licensure Exam 10.1 Answer questions and receive instant feedback in your Pearson eText in MyEdLab.