CHAPTER 10

Motivation in Learning and Teaching

What Would You Do?

Teachers' Casebook

It is July and you have finally gotten a teaching position. The district wasn't your first choice, but job openings were really tight, so you're pleased to have a job in your field. You are discovering that the teaching resources in your school are slim to none; the only resources are some aging texts and the workbooks that go with them. Every idea you have suggested for software, simulation games, visual aids, or other more active teaching materials has been met with the same response, "There's no money in the budget for that." As you look over the texts and workbooks, you wonder how the students could be anything but bored by them. To make matters worse, the texts look pretty high-level for your students. But the objectives in the workbooks are important. Besides, the district curriculum requires these units. Students will be tested on them in district-wide assessments next spring required by *No Child Left Behind*.

Critical Thinking

- How would you arouse student curiosity and interest about the topics and tasks in the workbooks?
- How would you establish the value of learning this material?
- How would you handle the difficulty level of the texts?
- What do you need to know about motivation to solve these problems?
- What do you need to know about your students in order to motivate them?

Collaboration

With 2 or 3 other members of your class, brainstorm what you could do to motivate your students.

Most educators agree that motivating students is one of the critical tasks of teaching. In order to learn, students must be cognitively, emotionally, and behaviorally engaged in productive class activities. We begin with the question "What is motivation?" and examine many of the answers that have been proposed, including a discussion of intrinsic and extrinsic motivation and four general theories of motivation: behavioral, humanistic, cognitive, and sociocultural.

Next, we consider more closely several personal factors that frequently appear in discussions of motivation: needs, goal orientations; interests and emotions; and beliefs, including the important concept of self-efficacy.

How do we put all this information together in teaching? How do we create environments, situations, and relationships that encourage motivation and engagement in learning? First, we consider how the personal influences on motivation come together to support motivation to learn. Then, we examine how motivation is influenced by the academic work of the class, the value of the work, and the setting in which the work must be done. Finally, we discuss a number of strategies for developing motivation as a constant state in your classroom and as a permanent trait in your students.

By the time you have completed this chapter, you should be able to answer these questions:

- What are intrinsic and extrinsic motivation and motivation to learn?
- How is motivation conceptualized in the behavioral, humanistic, cognitive, and sociocultural perspectives?
- What are the possible motivational effects of success and failure, and how do these effects relate to beliefs about ability?
- What are the roles of goals, interests, emotions, and beliefs about the self in motivation?
- What external factors can teachers influence that will encourage students' motivation to learn?
- What is your strategy for teaching your subject to an uninterested student?

FACING PAGE *Two Girls at the Piano*, 1892. Auguste Renoir. Photo: Erich Lessing/Art Resource, New York.

What Is Motivation?

Motivation is usually defined as *an internal state that arouses, directs, and maintains behavior.* Psychologists studying motivation have focused on five basic questions:

1. *What choices do people make about their behavior?* Why do some students, for example, focus on their homework and others watch television?
2. *How long does it take to get started?* Why do some students start their homework right away, while others procrastinate?
3. *What is the intensity or level of involvement in the chosen activity?* Once the backpack is opened, is the student absorbed and focused or just going through the motions?
4. *What causes a person to persist or to give up?* Will a student read the entire Shakespeare assignment or just a few pages?
5. *What is the individual thinking and feeling while engaged in the activity?* Is the student enjoying Shakespeare, feeling competent, or worrying about an upcoming test (Graham & Weiner, 1996; Pintrich, Marx, & Boyle, 1993)?

Meeting Some Students

As you will see in this chapter and the next, there are many factors that influence motivation and engaged learning. To get a sense of the complexity, let's step into a middle-school general-science classroom just after the teacher has given directions for a class activity. The student profiles are adapted from Stipek (2002).

Hopeless Geraldo won't even start the assignment—as usual. He just keeps saying, "I don't understand," or "This is too hard." When he answers your questions correctly, he "guessed" and he "doesn't really know." Geraldo spends most of his time staring into space; he is falling farther and farther behind.

Safe Sumey checks with you about every step—she wants to be perfect. You once gave her bonus points for doing an excellent color drawing of the apparatus, and now she produces a work of art for lab every time. But Sumey won't risk getting a B. If it isn't required or on the test, Sumey isn't interested.

Satisfied Spenser on the other hand, is interested in this project. In fact, he knows more than you do about it. Evidently he spends hours reading about chemistry and performing experiments. But his overall grade in your class is between B− and C+ because when you were studying biology, Spenser was satisfied with the C he could get on tests without even trying.

Defensive Daleesha doesn't have her lab manual—again, so she has to share with another student. Then she pretends to be working, but spends most of her time making fun of the assignment or trying to get answers from other students when your back is turned. She is afraid to try because if she makes an effort and fails, she fears that everyone will know she is "dumb."

Anxious Amee is a good student in most subjects, but she freezes on science tests and "forgets" everything she knows when she has to answer questions in class. Her parents are scientists and expect her to become one too, but her prospects for this future look dim.

STOP | THINK | WRITE Each student above has problems with at least one of the five areas of motivation: choices, getting started, intensity, persistence, or thoughts and feelings. Can you diagnose the problems? The answers are on page 374. ■

Each student presents a different motivational challenge, yet you have to teach the entire class. In the next few pages, we will look more closely at the meaning of motivation so we can better understand these students.

Intrinsic and Extrinsic Motivation

We all know how it feels to be motivated, to move energetically toward a goal or to work hard, even if we are bored by the task. What energizes and directs our behavior? The

Connect and Extend to the Research

For a thorough discussion of the many terms and concepts related to motivation, see Murphy, P. K., & Alexander, P. A. (2000). A motivated exploration of motivation terminology. *Contemporary Educational Psychology, 25,* 3–53.

Connect and Extend to Your Teaching/Portfolio

Hopeless Geraldo is an example of a student experiencing *learned helplessness,* discussed later in the chapter.

Safe Sumey is an example of a student who is motivated by *extrinsic* factors, sets *performance goals,* fears *failure,* and views *ability as fixed.* She is also a (successful) *failure-avoiding student*—discussed later in the chapter.

Satisfied Spenser is an example of a student motivated by *intrinsic* factors. He set *learning goals* in his areas of interest, but just wants to perform "OK" in other areas. These concepts are discussed later in the chapter.

Defensive Daleesha is an example of a student who is motivated by extrinsic factors, sets *performance goals, fears failure,* and views *ability as fixed.* She is also a *failure-avoiding student.* Because she avoids work, she may soon become a *failure-accepting student*—discussed later in the chapter.

Anxious Amee is an example of a student experiencing debilitating *anxiety,* discussed later in the chapter.

Motivation An internal state that arouses, directs, and maintains behavior.

explanation could be drives, needs, incentives, fears, goals, social pressure, self-confidence, interests, curiosity, beliefs, values, expectations, and more. Some psychologists have explained motivation in terms of personal *traits* or individual characteristics. Certain people, so the theory goes, have a strong *need* to achieve, a *fear* of tests, or an enduring *interest* in art, so they work hard to achieve, avoid tests, or spend hours in art galleries. Other psychologists see motivation more as a *state*, a temporary situation. If, for example, you are reading this paragraph because you have a test tomorrow, you are motivated (at least for now) by the situation. Of course, the motivation we experience at any given time usually is a combination of trait and state. You may be studying because you value learning *and* because you are preparing for a test.

As you can see, some explanations of motivation rely on internal, personal factors such as needs, interests, and curiosity. Other explanations point to external, environmental factors—rewards, social pressure, punishment, and so on. A classic distinction in motivation is between intrinsic and extrinsic. **Intrinsic motivation** is the natural tendency to seek out and conquer challenges as we pursue personal interests and exercise capabilities (Deci & Ryan, 1985, 2002; Reeve, 1996). When we are intrinsically motivated, we do not need incentives or punishments, because *the activity itself is rewarding.* Satisfied Spenser studies chemistry outside school simply because he loves the activity; no one makes him do it.

In contrast, when we do something in order to earn a grade, avoid punishment, please the teacher, or for some other reason that has very little to do with the task itself, we experience **extrinsic motivation.** We are not really interested in the activity for its own sake; we care only about what it will gain us. Safe Sunny works for the grade; she has little interest in the subject itself.

According to psychologists who adopt the intrinsic/extrinsic concept of motivation, it is impossible to tell just by looking if a behavior is intrinsically or extrinsically motivated. The essential difference between the two types of motivation is the student's reason for acting, that is, whether the **locus of causality** for the action (the location of the cause) is internal or external—inside or outside the person. Students who read or practice their backstroke or paint may be reading, swimming, or painting because they freely chose the activity based on personal interests (*internal locus* of causality/intrinsic motivation), or because someone or something else outside is influencing them (*external locus* of causality/extrinsic motivation) (Reeve, 1996).

As you think about your own motivation, you probably realize that the dichotomy between intrinsic and extrinsic motivation is too simple—too all-or-nothing. One explanation is that our activities fall along a continuum from fully *self-determined* (intrinsic motivation) to fully *determined by others* (extrinsic motivation). For example, students may freely choose to work hard on activities that they don't find particularly enjoyable because they know the activities are important in reaching a valued goal—such as spending hours studying educational psychology in order to become a good teacher. Is this intrinsic or extrinsic motivation? Actually, it is in between—the person is freely choosing to accept outside causes such as licensure requirements and then is trying to get the most benefit from the requirements. The person has *internalized an external cause.*

Recently, the notion of intrinsic and extrinsic motivation as two ends of a continuum has been challenged. An alternative explanation is that just as motivation can include both trait and state factors, it also can include both intrinsic and extrinsic factors. Intrinsic and extrinsic tendencies are two independent possibilities, and, at any given time, we can be motivated by some of each (Covington & Mueller, 2001). Teaching can create intrinsic motivation by connecting to students' interests and supporting growing competence. But you know this won't work all the time. Did you find long division inherently interesting? Was your curiosity piqued by irregular verbs? If teachers count on intrinsic motivation to energize all their students all of the time, they will be disappointed. There are situations where incentives and external supports are necessary. Teachers must encourage and nurture intrinsic motivation, while making sure that extrinsic motivation supports learning (Brophy, 1988, 2003; Deci, Koestner, & Ryan, 1999; Ryan & Deci, 1996). To do this, they need to know about the factors that influence motivation.

Intrinsic motivation Motivation associated with activities that are their own reward.

Extrinsic motivation Motivation created by external factors such as rewards and punishments.

Locus of causality The location—internal or external—of the cause of behavior.

STOP | THINK | WRITE ANSWERS

Hopeless Geraldo has trouble with question 2 (getting started) and with question 5; during the activity he feels defeated and helpless. **Safe Sumey** (1) makes good choices, (2) gets started right away, and (3) persists. But she is not really engaged and takes little pleasure in the work (4 and 5). As long as he is following his own choices, **Satisfied Spenser** is prompt in getting started, engaged, persistent, and enjoys the task. **Defensive Daleesha** makes poor choices, procrastinates, avoids engagement, and gives up easily because she is so concerned about how others will judge her. **Anxious Amee's** problems have to do with question 5—what she thinks and how she feels as she works. Her worry and anxiety may lead her to make poor choices and procrastinate, which only makes her more anxious at test time.

Four General Approaches to Motivation

STOP | THINK | WRITE Why are you reading this chapter? Are you curious about motivation and interested in the topic? Or is there a test in your near future? Do you need this course to earn a teaching license or to graduate? Maybe you believe that you will do well in this class, and that belief keeps you working. Perhaps it is some combination of these reasons. What motivates you to study motivation? ■

Connect and Extend to the Research

See the entire issue of *Educational Leadership*, September 2002 (Vol. 60, No. 1) for 14 articles on "Do Students Care About Learning?" These articles discuss how to create enthusiasm, excitement, and investment in learning.

Motivation is a vast and complicated subject encompassing many theories. Some theories were developed through work with animals in laboratories. Others are based on research with humans in situations that used games or puzzles. Some theories grew out of the work done in clinical or industrial psychology. Our examination of the field will be selective; otherwise we would never finish the topic.

Behavioral Approaches to Motivation. According to the behavioral view, an understanding of student motivation begins with a careful analysis of the incentives and rewards present in the classroom. A **reward** is an attractive object or event supplied as a consequence of a particular behavior. For example, Safe Sumey was rewarded with bonus points when she drew an excellent diagram. An **incentive** is an object or event that encourages or discourages behavior. The promise of an A+ was an incentive to Sumey. Actually receiving the grade was a reward.

Connect and Extend to PRAXIS II™

Maslow (I, C1)

Consider how problems with satisfying Maslow's needs can affect student learning. Link these ideas to direct or vicarious experiences you might have had in school.

If we are consistently reinforced for certain behaviors, we may develop habits or tendencies to act in certain ways. For example, if a student is repeatedly rewarded with affection, money, praise, or privileges for earning letters in baseball, but receives little recognition for studying, the student will probably work longer and harder on perfecting her fastball than on understanding geometry. Providing grades, stars, stickers, and other reinforcers for learning—or demerits for misbehavior—is an attempt to motivate students by extrinsic means of incentives, rewards, and punishments.

Reward An attractive object or event supplied as a consequence of a behavior.

Incentive An object or event that encourages or discourages behavior.

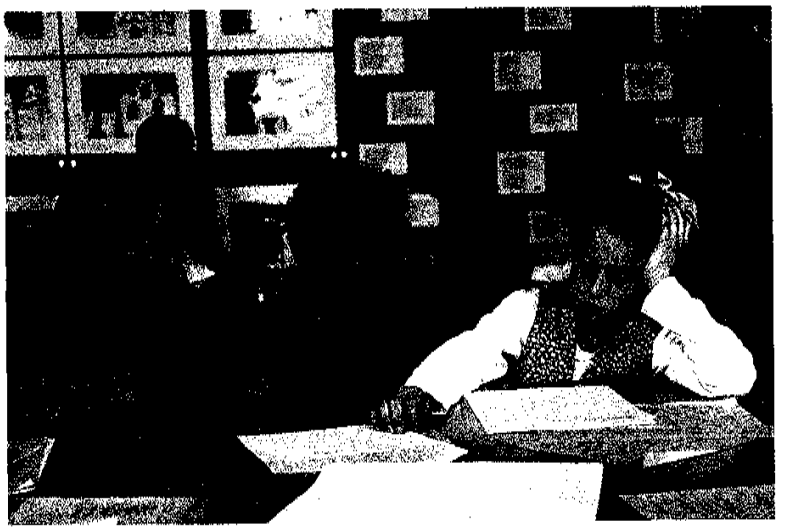
Humanistic interpretation Approach to motivation that emphasizes personal freedom, choice, self-determination, and striving for personal growth.

Hierarchy of needs Maslow's model of seven levels of human needs, from basic physiological requirements to the need for self-actualization.

Self-actualization Fulfilling one's potential.

Humanistic Approaches to Motivation. In the 1940s, proponents of humanistic psychology such as Carl Rogers argued that neither of the dominant schools of psychology, behavioral or Freudian, adequately explained why people act as they do. **Humanistic interpretations** of motivation emphasize such intrinsic sources of motivation as a person's needs for "self-actualization" (Maslow, 1968, 1970), the inborn "actualizing tendency" (Rogers & Freiberg, 1994), or the need for "self-determination" (Deci, Vallerand, Pelletier, & Ryan, 1991). So, from the humanistic perspective, to motivate means to encourage people's inner resources—their sense of competence, self-esteem, autonomy, and self-actualization. Maslow's theory has been an influential humanistic explanation of motivation.

Maslow's Hierarchy. Abraham Maslow (1970) suggested that humans have a **hierarchy of needs** ranging from lower-level needs for survival and safety to higher-level needs for intellectual achievement and finally self-actualization. **Self-actualization** is Maslow's



According to Maslow's hierarchy, when the needs for love and belongingness are met, individuals can then address the so-called higher level needs of intellectual achievement and self-actualization.

term for self-fulfillment, the realization of personal potential. Each of the lower needs must be met before the next higher need can be addressed.

Maslow (1968) called the four lower-level needs—for survival, then safety, followed by belonging, and then self-esteem—**deficiency needs.** When these needs are satisfied, the motivation for fulfilling them decreases. He labeled the three higher-level needs—intellectual achievement, then aesthetic appreciation, and finally self-actualization—**being needs.** When they are met, a person's motivation does not cease; instead, it increases to seek further fulfillment. Unlike the deficiency needs, these being needs can never be completely filled. For example, the more successful you are in your efforts to develop as a teacher, the harder you are likely to strive for even greater improvement.

Maslow's theory has been criticized for the very obvious reason that people do not always appear to behave as the theory would predict. Most of us move back and forth among different types of needs and may even be motivated by many different needs at the same time. Some people deny themselves safety or friendship in order to achieve knowledge, understanding, or greater self-esteem.

Criticisms aside, Maslow's theory does give us a way of looking at the whole student, whose physical, emotional, and intellectual needs are all interrelated. A child whose feelings of safety and sense of belonging are threatened by divorce may have little interest in learning how to divide fractions. If school is a fearful, unpredictable place where neither teachers nor students know where they stand, they are likely to be more concerned with security and less with learning or teaching. Belonging to a social group and maintaining self-esteem within that group, for example, are important to students. If doing what the teacher says conflicts with group rules, students may choose to ignore the teacher's wishes or even defy the teacher.

A more recent approach to motivation that focuses on human needs is self-determination theory (Deci & Ryan, 2002), discussed later in this chapter.

Cognitive and Social Cognitive Approaches to Motivation. In cognitive theories, people are viewed as active and curious, searching for information to solve personally relevant problems. Thus, cognitive theorists emphasize intrinsic motivation. In many ways, cognitive theories of motivation also developed as a reaction to the behavioral views. Cognitive theorists believe that behavior is determined by our thinking, not simply by whether we have been rewarded or punished for the behavior in the past (Stipek, 2002). Behavior is initiated and regulated by plans (Miller, Galanter, & Pribram, 1960), goals (Locke & Latham, 2002), schemas (Ortony, Clore, & Collins, 1988), expectations (Vroom, 1964), and attributions (Weiner, 2000). We will look at goals and attributions later in this chapter.

Deficiency needs Maslow's four lower-level needs, which must be satisfied first.

Being needs Maslow's three higher-level needs, sometimes called growth needs.

Expectancy × Value Theories. Theories that take into account both the behaviorists' concern with the effects or outcomes of behavior and the cognitivists' interest in the

impact of individual thinking can be characterized as **expectancy × value theories.** This means that motivation is seen as the product of two main forces: the individual's expectation of reaching a goal and the value of that goal to him or her. In other words, the important questions are, "If I try hard, can I succeed?" and "If I succeed, will the outcome be valuable or rewarding to me?" Motivation is a product of these two forces, because if either factor is zero, there is no motivation to work toward the goal. For example, if I believe I have a good chance of making the basketball team (high expectation), and if making the team is very important to me (high value), then my motivation should be strong. But if either factor is zero (I believe I haven't a prayer of making the team, or I couldn't care less about playing basketball), then my motivation will be zero, too (Tollefson, 2000).

Jacqueline Eccles and Allan Wigfield add the element of *cost* to the expectancy × value equation. Values have to be considered in relation to the cost of pursuing them. How much energy will be required? What could I be doing instead? What are the risks if I fail? Will I look stupid (Eccles & Wigfield, 2001; Wigfield & Eccles, 1992)? Bandura's theory of self-efficacy, discussed later in this chapter, is a social cognitive expectancy × value approach to motivation (Feather, 1982; Pintrich & Schunk, 2002).

Sociocultural Conceptions of Motivation. Finish this sentence: I am a/an _____. What is your identity? With what groups do you identify most strongly? **Sociocultural views of motivation** emphasize participation in communities of practice. People engage in activities to maintain their identities and their interpersonal relations within the community. Thus, students are motivated to learn if they are members of a classroom or school community that values learning. Just as we learn through socialization to speak or dress or order food in restaurants—by watching and learning from more capable members of the culture—we also learn to be students by watching and learning from members of our school community. In other words, we learn by the company we keep (Hickey, 2003; Rogoff, Turkanis, & Bartlett, 2001).

The concept of identity is central in sociocultural views of motivation. When we see ourselves as soccer players, or sculptors, or engineers, or teachers, or psychologists, we have an identity within a group. Part of our socialization is moving from legitimate peripheral participation to central participation in that group. **Legitimate peripheral participation** means that beginners are genuinely involved in the work of the group, even if their abilities are undeveloped and their contributions are small. The novice weaver learns to dye wool before spinning and weaving, and the novice teacher learns to tutor one child before working with the whole group. Each task is a piece of the real work of the expert. The identities of both the novice and the expert are bound up in their participation in the community. They are motivated to learn the values and practices of the community to keep their identity as community members (Lave & Wenger, 1991; Wenger, 1998). *The Stories of Learning/Tributes to Teaching* feature describes how instructors and friends supported a Korean student in her efforts to learn.

Some classrooms are intentionally structured as learning communities. For example, Brown and Campione (1996) developed learning communities for middle-school students around research projects in science, as we saw in Chapter 9. Scardamalia and Bereiter (1996) designed a learning community using a computer system called CSILE—Computer-Supported Intentional Learning Environment—that encourages collaboration among students about questions, hypotheses, and findings. The challenge in these approaches is to be sure that all students are fully participating members of the community, because motivation comes from both identity and legitimate participation. Daniel Hickey (2003) says it this way. Engagement is "meaningful participation in a context where to-be-learned knowledge is valued and used" (p. 411).

The behavioral, humanistic, cognitive, and sociocultural approaches to motivation are summarized in Table 10.1. These theories differ in their answers to the question, "What is motivation?" but each contributes in its own way toward a comprehensive understanding.

To organize the many ideas about motivation in a way that is useful for teaching, let's examine four broad areas. Most contemporary explanations of motivation include a discussion of needs, goals, interests and emotions, and self-perceptions (Murphy & Alexander, 2000).

Expectancy × value theories Explanations of motivation that emphasize individuals' expectations for success combined with their valuing of the goal.

Sociocultural views of motivation Perspectives that emphasize participation, identities, and interpersonal relations within communities of practice.

Legitimate peripheral participation Genuine involvement in the work of the group, even if your abilities are undeveloped and contributions are small.

STORIES OF LEARNING
TRIBUTES TO TEACHING

These are the words of **LEA LEE**, a Korean woman who came to the United States to become a professor and scholar. She had to be far from her family and her culture to pursue her dream, but she was supported in her efforts by instructors and friends who shared their culture and embraced hers.

"Without my friends and instructors . . . I would not be who I am today."

All of the school experiences were difficult for me. From taking lecture notes in class and taking exams to writing term papers, I struggled with the language barrier. I really wanted to understand the entire lecture. I understood only 30 to 40 percent of the information received during lectures during my first semester. I needed a guide who could show me how to study and how to be an outstanding student. Often, instructors don't consider that international students have special needs and require some adaptations during lectures and exams. It would have been a great help if the instructor had assigned a buddy who would have allowed me to copy lecture notes. No matter what type of problems I faced, however, I never gave up. I searched for solutions to problems so that I could achieve my goal. For example, when I could not understand a subject, I read textbooks repeatedly. I even memorized the text so that I would be able to pass the course with a good grade.

After tolerating many painful years, I finally became a professor and scholar in America. My ceaseless efforts were necessary, but not sufficient to achieve my goal. Without my friends and instructors, who were encouraging and willing to give support, I know that I would not be who I am today. Many of my true friends embraced the Korean culture and encouraged me to be proud of my culture. Those friends' names and faces will live deep in my heart for a long, long time.

Source: From "Six Buckets of Tears: Korean Americans' School Experiences," by Lea Lee. In Gloria Swindler-Boutte (Ed.), *Resounding Voices: School Experiences of People from Diverse Ethnic Backgrounds.* Published by Allyn and Bacon, Boston, MA. Copyright © 2002 by Pearson Education. Adapted by permission of the publisher.

Needs: Competence, Autonomy, and Relatedness

We have already seen one motivation theory that focused on needs—Maslow's hierarchy of needs. Other early research in psychology conceived of motivation in terms of trait-like needs or consistent personal characteristics. Three of the main needs studied extensively were the needs for achievement, power, and affiliation (Pintrich, 2003). We will look at one recent theory that emphasizes similar needs through a focus on self-determination.

Self-Determination

Self-determination theory suggests that we all need to feel competent and capable in our interactions in the world, to have some choices and a sense of control over our lives, and to be connected to others—to belong to a social group. Notice that these are similar to

SDT
3 needs
① competent & capable (achieve)
② choice & control (power)
③ connect w/ others (affiliation)

TABLE 10.1

Four Views of Motivation

	Behavioral	Humanistic	Cognitive	Sociocultural
Source of Motivation	Extrinsic	Intrinsic	Intrinsic	Intrinsic
Important Influences	Reinforcers, rewards, incentives, and punishers	Need for self-esteem, self-fulfillment, and self-determination	Beliefs, attributions for success and failure, expectations	Engaged participation in learning communities; maintaining identity through participation in activities of group
Key Theorists	Skinner	Maslow Deci	Weiner Graham	Lave Wenger

earlier conceptions of basic needs: competence (achievement), autonomy and control (power), and relatedness (affiliation).

Need for autonomy is central to self-determination because it is the desire to have our own wishes, rather than external rewards or pressures, determine our actions (Deci & Ryan, 2002; Reeve, Deci, & Ryan, 2004; Ryan & Deci, 2000). People strive to be in charge of their own behavior. They constantly struggle against pressure from external controls such as the rules, schedules, deadlines, orders, and limits imposed by others. Sometimes, even help is rejected so that the individual can remain in command (deCharms, 1983).

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Self-Determination (I, C3) Understand how this sense can boost or diminish motivation and describe practical steps that teachers can take to establish a sense of self-determination in students.

Self-Determination in the Classroom. Classroom environments that support student self-determination and autonomy are associated with greater student interest, sense of competence, creativity, conceptual learning, and preference for challenge. These relationships appear to hold from 1st grade through graduate school (Deci & Ryan, 2002; Williams, Wiener, Markakis, Reeve, & Deci, 1993). When students can make choices, they are more likely to believe that the work is important, even if it is not "fun." Thus, they tend to internalize educational goals and take them as their own.

In contrast to autonomy-supporting classrooms, controlling environments tend to improve performance only on rote recall tasks. When students are pressured to perform, they often seek the quickest, easiest solution. One discomforting finding, however, is that both students and parents seem to prefer more controlling teachers, even though the students learn more when their teachers support autonomy (Flink, Boggiano, & Barrett, 1990). Assuming you are willing to risk going against popular images, how can you support student autonomy? One answer is to focus on *information*, not *control*, in your interactions with students.

Connect and Extend to the Research

To capture the difference between self- and other-determination, Richard deCharms (1976, 1983) used the metaphor of people as "origins" and "pawns." Origins perceive themselves as the origin or source of their intention to act in a certain way. As pawns, people see themselves as powerless participants in a game controlled by others. When people feel like pawns, play becomes work, leisure feels like obligation, and intrinsic motivation becomes extrinsic motivation. For example, you may have had the experience of deciding to wash the car or clean your room, only to have your motivation dampened by a parent who insists that you tackle the chore. Your chance to be an origin seems spoiled by outside attempts at control. You don't want to wash the car anymore because your sense of self-determination is taken away. DeCharms observed that students are too little governed by their own intrinsic motivation and too powerless over external controls. To deal with the issue, he developed programs to help teachers support student self-determination. The programs emphasized setting realistic goals, personal planning of activities to reach the goals, personal responsibility for actions, and feelings of self-confidence.

Information and Control. Many things happen to students throughout the school day. They are praised or criticized, reminded of deadlines, assigned grades, given choices, lectured about rules, and on and on. **Cognitive evaluation theory** (Deci & Ryan, 2002; Ryan & Deci, 2000) explains how these events can influence the students' intrinsic motivation by affecting their sense of self-determination and competence. According to this theory, all events have two aspects, controlling and informational. If an event is highly controlling, that is, if it pressures students to act or feel a certain way, then students will experience less control and their *intrinsic motivation* will be diminished. If, on the other hand, the event provides information that increases the students' sense of competence, then intrinsic motivation will increase. Of course, if the information provided makes students feel less competent, it is likely that motivation will decrease (Pintrich, 2003).

For example, a teacher might praise a student by saying, "Good for you! You got an A because you finally followed my instructions correctly." This is a highly controlling statement, giving the credit to the teacher and thus undermining the student's sense of self-determination and intrinsic motivation. The teacher could praise the same work by saying, "Good for you! Your understanding of the author's use of metaphors has improved tremendously. You earned an A." This statement provides information about the student's growing competence and should increase intrinsic motivation.

What can teachers do to support student needs for autonomy and competence? An obvious first step is to limit their controlling messages to their students and make sure the information they provide highlights students' growing competence. The *Guidelines* give ideas.

Need for autonomy The desire to have our own wishes, rather than external rewards or pressures, determine our actions.

Cognitive evaluation theory Suggests that events affect motivation through the individual's perception of the events as controlling behavior or providing information.

The Need for Relatedness. The need for relatedness is the desire to establish close emotional bonds and attachments with others. When teachers and parents are responsive and demonstrate that they care about the children's interests and well-being, the children show high intrinsic motivation. But, when children are denied the interpersonal involvement they seek from adults—when adults, for example, are unresponsive to their needs—the children lose intrinsic motivation (Solomon, Battistich, Watson, Schaps, & Lewis, 2000). Students who feel a sense of relatedness to teachers, parents, and peers are

Guidelines: Supporting Self-Determination and Autonomy

Allow and encourage students to make choices.

EXAMPLES

1. Design several different ways to meet a learning objective (e.g., a paper, a compilation of interviews, a test, a news broadcast) and let students choose one. Encourage them to explain the reasons for their choice.
2. Appoint student committees to make suggestions about streamlining procedures such as caring for class pets or distributing equipment.
3. Provide time for independent and extended projects.

Help students plan actions to accomplish self-selected goals.

EXAMPLES

1. Experiment with goal cards. Students list their short- and long-term goals and then record 3 or 4 specific actions that will move them toward the goals. Goal cards are personal—like credit cards.
2. Encourage middle- and high-school students to set goals in each subject area, record them in a goal book or on a floppy disk, and check progress toward the goals on a regular basis.

Hold students accountable for the consequences of their choices.

EXAMPLES

1. If students choose to work with friends and do not finish a project because too much time was spent socializing, grade the project as it deserves and help the students see the connection between lost time and poor performance.
2. When students choose a topic that captures their imagination, discuss the connections between their investment in the work and the quality of the products that follow.

Provide rationales for limits, rules, and constraints.

EXAMPLES

1. Explain reasons for rules.
2. Respect rules and constraints in your own behavior.

Acknowledge that negative emotions are valid reactions to teacher control.

EXAMPLES

1. Communicate that it is okay (and normal) to feel bored waiting for a turn, for example.
2. Communicate that sometimes important learning involves frustration, confusion, weariness.

Use noncontrolling, positive feedback.

EXAMPLES

1. See poor performance or behavior as a problem to be solved, not a target of criticism.
2. Avoid controlling language, "should," "must," "have to."

For more information on self-determination theory see:
http://www.psych.rochester.edu/SDT/

more emotionally engaged in school (Furrer & Skinner, 2003). In addition, emotional and physical problems—ranging from eating disorders to suicide—are more common among people who lack social relationships (Baumeister & Leary, 1995). Relatedness is similar to a sense of belonging, discussed in Chapter 3. We will explore belonging and engaged learning in the next chapter (Osterman, 2000).

Needs: Lessons for Teachers

From infancy to old age, people want to be both competent and connected. Students are more likely to participate in activities that help them grow more competent and less likely to engage in activities that cause them to fail. This means that the students need appropriately challenging tasks—not too easy, but not impossible either. They also benefit from ways of watching their competence grow, perhaps through self-monitoring systems or portfolios. To be connected, students need to feel that people in school care about them and can be trusted to help them learn.

What else matters in motivation? Many theories include goals as key elements.

Goal Orientations and Motivation

STOP | THINK | WRITE On a scale from 1 (Strongly Agree) to 5 (Strongly Disagree), how would you answer these questions:

I feel really pleased in school when

___ I solve problems by working hard
___ I know more than the others
___ I don't have to work hard
___ I keep busy
___ I finish first
___ All the work is easy
___ I learn something new
___ I am the only one who gets an A
___ I am with my friends

Connect and **Extend** to the **Research**

For a synthesis of the research on goals from two founders of the theory, see: Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist, 57,* 705–717.

A goal is an outcome or attainment an individual is striving to accomplish (Locke & Latham, 2002). When students strive to read a chapter or make a 4.0 GPA, they are involved in *goal-directed behavior.* In pursuing goals, students are generally aware of some current condition (I haven't even opened my book), some ideal condition (I have understood every page), and the discrepancy between the current and ideal situations. Goals motivate people to act in order to reduce the discrepancy between "where they are" and "where they want to be." Goal setting is usually effective for me. In addition to the routine tasks, such as eating lunch, which will happen without much attention, I often set goals for each day. For example, today I intend to finish this section, walk four miles, and wash another load of clothes (I know—not too exciting). Having decided to do these things, I will feel uncomfortable if I don't complete the list.

According to Locke and Latham (2002), there are four main reasons why goal setting improves performance. Goals:

1. *Direct our attention* to the task at hand and away from distractions. Every time my mind wanders from this chapter, my goal of finishing the section helps direct my attention back to the writing.
2. *Energize effort.* The more challenging the goal, to a point, the greater the effort.
3. *Increase persistence.* When we have a clear goal, we are less likely to give up until we reach the goal: Hard goals demand effort and tight deadlines lead to faster work.
4. *Promote the development of new knowledge and strategies* when old strategies fall short. For example, if your goal is making an A and you don't reach that goal on your first quiz, you might try a new study approach for the next quiz, such as explaining the key points to a friend.

Types of Goals and Goal Orientations

The types of goals we set influence the amount of motivation we have to reach them. Goals that are specific, moderately difficult, and likely to be reached in the near future tend to enhance motivation and persistence (Pintrich & Schunk, 2002; Stipek, 2002). Specific goals provide clear standards for judging performance. If performance falls short, we keep going. For example, I have decided to "finish this section" instead of deciding to "work on the book." Anything short of having the section ready to mail means "keep working" (looks like another late night!). Moderate difficulty provides a challenge, but not an unreasonable one. I can finish this section if I stay with it. Finally, goals that can be reached fairly soon are not likely to be pushed aside by more immediate concerns. Groups such as Alcoholics Anonymous show they are aware of the motivating value of short-term goals when they encourage their members to stop drinking "one day at a time."

Goal What an individual strives to accomplish.

Goal orientations Patterns of beliefs about goals related to achievement in school.

Four Goal Orientations in School. Goals are specific targets. **Goal orientations** are patterns of beliefs about goals related to achievement in school. Goal orientations include the reasons we pursue goals and the standards we use to evaluate progress toward those goals. For example, your target might be to make an A in this course. Are you doing so in

Goal orientations refer to the reasons individuals pursue goals and the standards by which progress toward them is measured. This contestant may have as her main goal to master spelling, outperform others, or perhaps she simply enjoys puzzling through the words.

order to master educational psychology—to learn all about it, or to perform—to look good in the eyes of your friends and family? There are four main goal orientations—mastery (learning), performance (looking good), work-avoidance, and social (Murphy & Alexander, 2000; Pintrich & Schunk, 2002). In the *Stop/Think/Write* exercise on the preceding page, can you tell which goal orientations are reflected in the different answers? Most of the questions were adapted from a study on students' theories about learning mathematics (Nicholls, Cobb, Wood, Yackel, Patashnick, 1990).

The most common distinction in research on students' goals is between mastery goals (also called *task goals* or *learning goals*) and performance goals (also called *ability goals* or *ego goals*) (Midgley, 2001). The point of a **mastery goal** is to improve, to learn, no matter how awkward you appear. Students who set mastery goals tend to seek challenges and persist when they encounter difficulties. Because they focus on the task at hand and are not worried about how their performance "measures up" compared to others in the class, these students have been called **task-involved learners** (Nicholls & Miller, 1984). We often say that these people "get lost in their work." In addition, they are more likely to seek appropriate help, use deeper cognitive processing strategies, apply better study strategies, and generally approach academic tasks with confidence (Butler & Neuman, 1995; Midgley, 2001; Young, 1997).

The second kind of goal is a performance goal. Students with **performance goals** care about demonstrating their ability to others. They may be focused on getting good test scores and grades, or they may be more concerned with winning and beating other students (Wolters, Yu, & Pintrich, 1996). Students whose goal is outperforming others may do things to look smart, such as reading easy books in order to "read the most books" (Young, 1997). The evaluation of their performance by others, not what they learn, is what matters. These students have been called **ego-involved learners** because they are preoccupied with themselves. Students with performance goals may act in ways that actually interfere with learning. For example, they may cheat or use short-cuts to get finished, work hard only on graded assignments, be upset and hide papers with low grades, choose tasks that are easy, and be very uncomfortable with assignments that have unclear evaluation criteria (Stipek, 2002).

Wait—Are Performance Goals Always Bad? Performance goals sound pretty dysfunctional, don't they? Earlier research indicated that performance goals generally were detrimental to learning, but like extrinsic motivation, a performance goal orientation may not be all bad all of the time. In fact, some research indicates that both mastery and performance goals are associated with using active learning strategies and high self-efficacy (Midgley, Kaplan, & Middleton, 2001; Stipek, 2002). And, like intrinsic and extrinsic motivation, students can, and often do pursue mastery and performance goals at the same time.

To account for these recent findings, educational psychologists have added the distinction of approach/avoidance to the mastery/performance distinction. In other words,

4 goal orientations
① mastery
② performance
③ work-avoidance
④ social

like · intrinsic/extrinsic,
· mastery/performance
both can be pursued @ same time...

Mastery goal A personal intention to improve abilities and learn, no matter how performance suffers.

Task-involved learners Students who focus on mastering the task or solving the problem.

Performance goal A personal intention to seem competent or perform well in the eyes of others.

Ego-involved learners Students who focus on how well they are performing and how they are judged by others.

TABLE 10.2

Goal Orientations
Students may have either an approach or an avoidance focus for mastery and performance goal orientations.

Goal Orientation	Approach Focus	Avoidance Focus
Mastery	*Focus:* Mastering the task, learning, understanding	*Focus:* Avoiding misunderstanding or not mastering the task
	Standards Used: Self-improvement, progress, deep understanding (task-involved)	*Standards Used:* Just don't be wrong; perfectionists don't make mistakes
Performance	*Focus:* Being superior, winning, being the best	*Focus:* Avoiding looking stupid, avoid losing
	Standards Used: Normative—getting the highest grade, winning the competition (ego-involved goal)	*Standards Used:* Normative—don't be the worst, get the lowest grade, or be the slowest (ego-involved goal)

Source: From *Motivation in Education: Theory, Research, and Applications* (2nd ed.), by P. Pintrich and D. Schunk. Published by Prentice Hall. Copyright © 2002 by Prentice Hall. Reprinted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

students may be motivated to either approach mastery or avoid misunderstanding. They may approach performance or avoid looking dumb. Table 10.2 shows examples and the effects of each kind of goal orientation. Where do you see the most problems? Do you agree that the real problems are with avoidance? Students who fear misunderstanding (mastery avoid) may be perfectionist—focused on getting it exactly right. Students who avoid looking dumb (performance avoid) may adopt defensive, failure-avoiding strategies like Defensive Daleesha described earlier—they pretend not to care, make a show of "not really trying," or cheat (Harackiewiz, Barron, Pintrich, Elliot, & Thrash, 2002).

Beyond Mastery and Performance. Some students don't want to learn or to look smart; they just want to avoid work. These students try to complete assignments and activities as quickly as possible without exerting much effort (Pintrich & Schunk, 2002). John Nicholls (1984) called these students **work-avoidant learners**—they feel successful when they don't have to try hard, when the work is easy, or when they can "goof off."

A final category of goals becomes more important as students get older—**social goals.** As students move into adolescence, their social networks change to include more peers. Nonacademic activities such as athletics, dating, and "hanging out" compete with schoolwork (Urdan & Maehr, 1995). Social goals include a wide variety of needs and motives that have different relationships to learning—some help, but some hinder learning. For example, adolescents' goal of maintaining friendly relations can get in the way of learning when cooperative learning group members don't challenge wrong answers or misconceptions because they are afraid to hurt each other's feelings (Anderson, Holland, & Palincsar, 1997). Certainly, pursuing goals such as having fun with friends or avoiding being labeled a "nerd" can get in the way of learning. But the goal of bringing honor to your family or team by working hard can also support learning (Urdan & Maehr, 1995). Social goals that include being a part of peer groups that value academics certainly can support learning (Pintrich, 2003; A. Ryan, 2001).

We talk about goals in separate categories, but students have to coordinate their goals so they can make decisions about what to do and how to act. As noted above, sometimes social and academic goals are incompatible. For example, if students do not see a connection between achievement in school and success in life, particularly because discrimination prevents them from succeeding, then those students are not likely to set academic achievement as a goal. Such anti-academic peer groups probably exist in every high school (Committee on Increasing High School Students' Engagement and Motivation to Learn, 2004; Wentzel, 1999). Sometimes, succeeding in the peer group means not succeeding in school—and succeeding in the peer group is important. The need for social relationships is basic and strong for most people.

Social goals ⇒ involve variety of needs & motives, some help, others hinder learning

* Must coordinate goals *

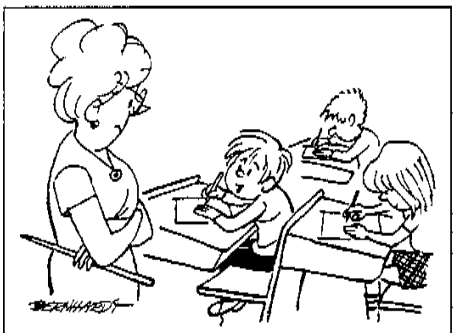
Work-avoidant learners Students who don't want to learn or to look smart, but just want to avoid work.

Social goals A wide variety of needs and motives to be connected to others or part of a group.

Feedback and Goal Acceptance

Besides having specific goals and creating supportive social relationships, there are two additional factors that make goal-setting in the classroom effective. The first is *feedback*. In order to be motivated by a discrepancy between "where you are" and "where you want to be," you must have an accurate sense of both your current status and how far you have to go. There is evidence that feedback emphasizing progress is the most effective. In one study, feedback to adults emphasized either that they had accomplished 75% of the standards set or that they had fallen short of the standards by 25%. When the feedback highlighted accomplishment, the subjects' self-confidence, analytic thinking, and performance were all enhanced (Bandura, 1997).

The second factor affecting motivation to pursue a goal is *goal acceptance*. If students reject goals set by others or refuse to set their own goals, then motivation will suffer. Generally, students are more willing to commit to the goals of others if the goals seem realistic, reasonably difficult, and meaningful—and if good reasons are given for the value of the goals (Grolnick, Gurland, Jacob, & Decourcey, 2002). Commitment matters—the relationship between higher goals and better performance is strongest when people are committed to the goals (Locke & Latham, 2002).



"What do I get for just neatness?"

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Goals: Lessons for Teachers

Students are more likely to work toward goals that are clear, specific, reasonable, moderately challenging, and attainable within a relatively short period of time. If teachers focus on student performance, high grades, and competition, they may encourage students to set performance goals. This could undermine the students' ability to learn and become task-involved (Anderman & Maehr, 1994). Students may not yet be expert at setting their own goals or keeping these goals in mind, so encouragement and accurate feedback are necessary. If you use any reward or incentive systems, be sure the goal you set is to *learn and improve* in some area, not just to perform well or look smart. And be sure the goal is not too difficult. Students, like adults, are unlikely to stick with tasks or respond well to teachers who make them feel insecure or incompetent.

What else do we know about motivation? Feelings matter.

Interests and Emotions

How do you feel about learning? Excited, bored, curious, fearful? Today, researchers emphasize that learning is not just about the *cold cognition* of reasoning and problem solving. Learning and information processing also are influenced by emotion, so *hot cognition* plays a role in learning as well (Miller, 2002; Pintrich, 2003). Students are more likely to pay attention to, learn about, and remember events, images, and readings that provoke emotional responses (Alexander & Murphy, 1998; Cowley & Underwood, 1998; Reisberg & Heuer, 1992) or that are related to their interests (Renninger, Hidi, & Krapp, 1992). Sometimes, emotions interfere with learning by taking up attention or working memory space that could be used for learning (Pekrun, Goetz, Titz, & Perry, 2002). How can we use these findings to support learning in school?

Tapping Interests

WHAT WOULD YOU SAY?

As part of your interview for a job in a large high school, the principal asks, "How would you get students interested in learning? Could you tap their interests in your teaching?" ■

When Walter Vispoel and James Austin (1995) surveyed over 200 middle-school students, "lack of interest in the topic" received the highest rating as the reason for school failures. Interest was second only to effort as a choice for explaining successes.

Connect and Extend to the Research

Vispoel, W. P., & Austing, J. R. (1995). Success and failure in junior high school: A critical incident approach to understanding students' attributional beliefs. *American Educational Research Journal*, 32, 377–412.

Students' interest in and excitement about what they're learning is one of the most important factors in education.

There are two kinds of interests—personal (individual) and situational—the trait and state distinction again. *Personal* or *individual interests* are more enduring aspects of the person, such as an enduring tendency to be attracted to or to enjoy subjects such as languages, history, or mathematics, or activities such as sports, music, or films. Students with individual interests in learning in general seek new information and have more positive attitudes toward schooling. *Situational interests* are more short-lived aspects of the activity, text, or materials that catch and keep the student's attention. Both personal and situational interests are related to learning from texts—greater interest leads to more positive emotional responses to the material, then to greater persistence, deeper processing, better remembering of the material, and higher achievement (Ainley, Hidi, & Berndorf, 2002; Pintrich, 2003; Schraw & Lehman, 2001). And interests increase when students feel competent, so even if students are not initially interested in a subject or activity, they may develop interests as they experience success (Stipek, 2002).

Catching and Holding Interests. Whenever possible, it helps to connect academic content to students' enduring personal interests. But given that the content you will teach is determined by standards in most classrooms today, it will be difficult to tailor lessons to each student's personal interests. You will have to rely more on situational interest. Here, the challenge is to not only *catch* but also *hold* students' interest (Pintrich, 2003). For example, Mathew Mitchell (1993) found that using computers, groups, and puzzles caught students' interest in secondary mathematics classes, but the interests did not hold. Lessons that held interests over time included math activities that were related to real-life problems and active participation in laboratory activities and projects. However, there are cautions in responding to students' interests, as you can see in the *Point/Counterpoint*.

Another source of interest is fantasy. For example, Cordova and Lepper (1996) found that students learned more math facts during a computer exercise when they were challenged, as captains of star ships, to navigate through space by solving math problems. The students got to name their ships, stock the (imaginary) galley with their favorite snacks, and name all the crew members after their friends.

Arousal: Excitement and Anxiety in Learning

Arousal Physical and psychological reactions causing a person to be alert, attentive, wide awake.

Just as we all know how it feels to be motivated, we all know what it is like to be aroused. **Arousal** involves both psychological and physical reactions—changes in brain wave patterns, blood pressure, heart rate, and breathing rate. We feel alert, wide awake, even

Point/Counterpoint

Does Making Learning Fun Make for Good Learning?

WHEN MANY BEGINNING teachers are asked about how to motivate students, they often mention making learning fun. But is it necessary for learning to be fun?

POINT Teachers should make learning fun.

When I searched "making learning fun" on Google.com, I found 10 pages of resources and references. Clearly, there is interest in making learning fun. Research shows that passages in texts that are more interesting are remembered better (Pintrich & Schunk, 2002). For example, students who read books that interested them spent more time reading, read more words in the books, and felt more positively about reading (Guthrie & Alao, 1997). Games and simulations can make learning more fun, too.

For example, when my daughter was in the 8th grade, all the students in her grade spent three days playing a game her teachers had designed called ULTRA. Students were divided into groups and formed their own "countries." Each country had to choose a name, symbol, national flower, and bird. They wrote and sang a national anthem and elected government officials. The teachers allocated different resources to the countries. To get all the materials needed for the completion of assigned projects, the countries had to establish trade with one another. There was a monetary system and a stock market. Students had to work with their fellow citizens to complete cooperative learning assignments. Some countries "cheated" in their trades with other nations, and this allowed debate about international relations, trust, and war. Liz says she had fun—but she also learned how to work in a group without the teacher's supervision and gained a deeper understanding of world economics and international conflicts.

A highly motivating 3rd-grade teacher in another study had her class set up a post office for the whole school. Each classroom in the school had an address and zip code. Students had jobs in the post office, and everyone in the school used the post office to deliver letters to students and teachers. Students designed their own stamps and set postal rates. The teacher said that the system "improves their creative writing without them knowing it" (Dolezal, Welsh, Pressley, & Vincent, 2003, p. 254).

COUNTERPOINT Fun can get in the way of learning.

As far back as the early 1900s, educators warned about the dangers of focusing on fun in learning. None other than John Dewey, who wrote extensively about the role of interest in learning, cautioned that you can't make boring lessons interesting by mixing in fun like you can make bad chili good by adding some spicy hot sauce. Dewey wrote, "When things have to be made interesting, it is because interest itself is wanting. Moreover, the phrase itself is a misnomer. The thing, the object, is no more interesting than it was before" (Dewey, 1913, pp. 11–12).

There is a good deal of research now indicating that adding interest by adding fascinating but irrelevant details actually gets in the way of learning the important information. These "seductive details," as they have been called, divert the readers' attention from the less interesting main ideas (Harp & Mayer, 1998). For example, students who read biographies of historical figures remembered more very interesting but unimportant information compared to interesting main ideas (Wade, Schraw, Buxton, & Hayes, 1993).

Shannon Harp and Richard Mayer (1997) found similar results with high-school science texts. These texts added emotional interest and seductive details about swimmers and golfers who are injured by lightning to a lesson on the process of lightning. They concluded that, "in the case of emotional interest versus cognitive interest, the verdict is clear. Adjuncts aimed at increasing emotional interest failed to improve understanding of scientific explanations" (p. 100). The seductive details may have disrupted students' attempts to follow the logic of the explanations and thus interfered with comprehending the text. Harp and Mayer conclude that "the best way to help students enjoy a passage is to help them understand it" (p. 100).

WHAT DO YOU THINK?

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excited. To understand the effects of arousal on motivation, think of two extremes. The first is late at night. You are trying for the third time to understand a required reading, but you are so sleepy. Your attention drifts as your eyes droop. You decide to go to bed and get up early to study (a plan that you know seldom works). At the other extreme, imagine that you have a critical test tomorrow—one that determines whether you will get into the school you want. You feel tremendous pressure from everyone to do well. You know that you need a good night's sleep, but you are wide awake. In the first case, arousal is too low and in the second, too high.

Guidelines: Building on Students' Interests and Curiosity

Relate content objectives to student experiences.

EXAMPLES

1. With a teacher in another school, establish pen pals across the classes. Through writing letters, students exchange personal experiences, photos, drawings, written work, and ask and answer questions ("Have you learned cursive writing yet?" "What are you doing in math now?" "What are you reading?"). Letters can be mailed in one large mailer to save stamps.
2. Identify classroom experts for different assignments or tasks. Who knows how to use the computer for graphics? How to search the Net? How to cook? How to use an index?
3. Have a "Switch Day" when students exchange roles with a school staff or support person. Students must research the role by interviewing their staff member, prepare for the job, dress the part for the day they take over, and then evaluate their success after the switch.

Identify student interests, hobbies, and extracurricular activities that can be incorporated into class lessons and discussions.

EXAMPLES

1. Have students design and conduct interviews and surveys to learn about each other's interests.
2. Keep the class library stocked with books that connect to students' interests and hobbies.
3. Allow choices (stories in language arts or projects in science) based on students' interests.

Support instruction with humor, personal experiences, and anecdotes that show the human side of the content.

EXAMPLES

1. Share your own hobbies, interests, and favorites.
2. Tell students there will be a surprise visitor; then dress up as the author of a story and tell about "yourself" and your writing.

Use original source material with interesting content or details.

EXAMPLES

1. Letters and diaries in history.
2. Darwin's notes in biology.

Create surprise and curiosity.

EXAMPLES

1. Have students predict what will happen in an experiment, then show them that they are wrong.
2. Provide quotes from history and ask students to guess who said it.

For more information on students' interests and motivation, see: **http://mathforum.org/~sarah/Discussion.Sessions/biblio.motivation.html**

Source: From *150 Ways to Increase Intrinsic Motivation in the Classroom*, by James P. Raffini. Published by Allyn and Bacon, Boston, MA. Copyright © 1996 by Pearson Education. Adapted by permission of the publisher. Also *Motivation in Education (2nd ed.)* by P. Pintrich and D. Schunk, 2002, Merrill/Prentice-Hall, pp. 298–299.

Psychologists have known for years that there is an optimum level of arousal for most activities (Yerkes & Dodson, 1908). Generally speaking, higher levels of arousal are helpful on simple tasks such as sorting laundry, but lower levels of arousal are better for complex tasks such as taking the GRE. Let's look for a moment at how to increase arousal by arousing curiosity.

Connect and Extend to the Research

Lowenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin, 117*, 75–98. This article connects curiosity to perceived gaps in information.

Curiosity: Novelty and Complexity. Interest and curiosity are related. Curiosity could be defined as a tendency to be interested in a wide range of areas (Pintrich, 2003). Almost 40 years ago, psychologists suggested that individuals are naturally motivated to seek novelty, surprise, and complexity (Berlyne, 1966). Research on teaching has found that variety in teaching approaches and tasks can support learning (Brophy & Good, 1986; Stipek, 2002). For younger students, the chance to manipulate and explore objects relevant to what is being studied may be the most effective way to keep curiosity stimulated. For older students, well-constructed questions, logical puzzles, and paradoxes can have the same effect. But remember that you have to do more than catch students' interest, you have to hold it, so the questions and puzzles should be related to meaningful learning.

George Lowenstein (1994) suggests that curiosity arises when attention is focused on a gap in knowledge. "Such information gaps produce the feeling of deprivation labeled *curiosity*. The curious person is motivated to obtain the missing information to reduce or

eliminate the feeling of deprivation" (p. 87). This idea is similar to Piaget's concept of disequilibrium, discussed in Chapter 2, and has a number of implications for teaching. First, students need some base of knowledge before they can experience gaps in knowledge leading to curiosity. Second, students must be aware of the gaps in order for curiosity to result. Asking students to make guesses and then providing feedback can be helpful. Also, mistakes, properly handled, can stimulate curiosity by pointing to missing knowledge. Finally, the more we learn about a topic, the more curious we may become about that subject. As Maslow (1970) predicted, fulfilling the need to know increases, not decreases, the need to know more. See the *Guidelines* for more about building interest and curiosity in the classroom.

As we discussed earlier, sometimes arousal is too high, not too low. Because classrooms are places where students are tested and graded, anxiety can become a factor in classroom motivation.

Anxiety in the Classroom. At one time or another, everyone has experienced **anxiety**, or a general uneasiness, a feeling of self-doubt, and sense of tension. The effects of anxiety on school achievement are clear. "From the time of the earliest work on this problem, starting with the pioneering work of Yerkes and Dodson (1908), to the present day, researchers have consistently reported a negative correlation between virtually every aspect of school achievement and a wide range of anxiety measures" (Covington & Omelich, 1987, p. 393). Anxiety can be both a cause and an effect of school failure—students do poorly because they are anxious, and their poor performance increases their anxiety. Anxiety probably is both a trait and a state. Some students tend to be anxious in many situations (trait anxiety), but some situations are especially anxiety provoking (state anxiety) (Covington, 1992; Zeidner, 1998).

Anxiety seems to have both cognitive and affective components. The cognitive side includes worry and negative thoughts—thinking about how bad it would be to fail and worrying that you will, for example. The affective side involves physiological and emotional reactions such as sweaty palms, upset stomach, racing heartbeat, or fear (Pintrich & Schunk, 2002; Zeidner, 1995, 1998). Whenever there are pressures to perform, severe consequences for failure, and competitive comparisons among students, anxiety may be encouraged (Wigfield & Eccles, 1989). Also, research with school-age children shows a relationship between the quality of sleep (how quickly and how well you sleep) and anxiety. Better-quality sleep is associated with positive arousal or an "eagerness" to learn. Poor-quality sleep, on the other hand, was related to debilitating anxiety and decreased school performance. You may have discovered these relationships for yourself in your own school career (Meijer & van den Wittenboer, 2004).

How Does Anxiety Interfere with Achievement? Anxiety interferes with learning and test performance at three points: focusing attention, learning, and testing. When students are learning new material, they must pay attention to it. Highly anxious students evidently divide their attention between the new material and their preoccupation with how worried and nervous they are feeling. Instead of concentrating, they keep noticing the tight feelings in their chest, thinking, "I'm so tense, I'll never understand this stuff!" From the beginning, anxious students may miss much of the information they are supposed to learn because their thoughts are focused on their own worries (Cassady & Johnson, 2002; Paulman & Kennelly, 1984).

Anxiety a learning
- focusing attention
- learning
- testing

But the problems do not end here. Even if they are paying attention, many anxious students have trouble learning material that is somewhat disorganized and difficult—material that requires them to rely on their memory. Unfortunately, much material in school could be described this way. In addition, many highly anxious students have poor study habits. Simply learning to be more relaxed will not automatically improve these students' performance; their learning strategies and study skills must be improved as well (Naveh-Benjamin, 1991).

Finally, anxious students often know more than they can demonstrate on a test. They may lack critical test-taking skills, or they may have learned the materials but "freeze and forget" on tests (Naveh-Benjamin, McKeachie, & Lin, 1987).

Anxiety General uneasiness, a feeling of tension.

Connect and **Extend** to **PRAXIS II™**

Test Anxiety (I, C3)

Test Taking and Anxiety (http://www.ulrc.psu.edu/studyskills/test_taking.html) provides tips and insights into addressing the problems associated with test anxiety. (And the tips might be useful for doing well on the PRAXIS II™ exam!)

Reaching Every Student: Coping with Anxiety

Some students, particularly those with learning disabilities or emotional disorders, may be especially anxious in school. When students face stressful situations such as tests, they can use three kinds of coping strategies: *problem solving, emotional management,* and *avoidance.* Problem-focused strategies might include planning a study schedule, borrowing good notes, or finding a protected place to study. Emotion-focused strategies are attempts to reduce the anxious feelings, for example, by using relaxation exercises or describing the feelings to a friend. Of course, the latter might become an avoidance strategy, along with going out for pizza or suddenly launching an all-out desk-cleaning attack (can't study until you get organized!). Different strategies are helpful at different points—for example, problem solving before and emotion management during an exam. Different strategies fit different people and situations (Zeidner, 1995, 1998).

Teachers should help highly anxious students to set realistic goals, because these individuals often have difficulty making wise choices. They tend to select either extremely difficult or extremely easy tasks. In the first case, they are likely to fail, which will increase their sense of hopelessness and anxiety about school. In the second case, they will probably succeed on the easy tasks, but they will miss the sense of satisfaction that could encourage greater effort and ease their fears about schoolwork. Goal cards, progress charts, or goal-planning journals may help here.

Interests and Emotions: Lessons for Teachers

Make efforts to keep the level of arousal right for the task at hand. If students are going to sleep, energize them by introducing variety, piquing their curiosity, surprising them, or giving them a brief chance to be physically active. Learn about their interests and incorporate these interests into lessons and assignments. If arousal is too great, follow the *Guidelines* for dealing with anxiety.

Beliefs and Self-Schemas

Thus far, we have talked about needs, goals, interests, and emotions, but there is another factor that must be considered in explaining motivation. What do students believe about themselves—their competence and the causes for success or failure? Let's start with a basic question—What do they believe about ability?

Beliefs about Ability

STOP | THINK | WRITE Rate these statements taken from Dweck (2000) on a scale from 1 (Strongly Agree) to 6 (Strongly Disagree).

___ You have a certain amount of intelligence and you really can't do much to change it.

___ You can learn new things, but you can't really change your basic intelligence.

___ No matter who you are, you can change your intelligence a lot.

___ No matter how much intelligence you have, you can always change it quite a bit.

Some of the most powerful beliefs affecting motivation in school are about *ability.* By examining these beliefs and how they affect motivation, we will understand why some people set inappropriate, unmotivating goals; why some students adopt self-defeating strategies; and why some students seem to give up altogether.

Entity view of ability Belief that ability is a fixed characteristic that cannot be changed.

Incremental view of ability Belief that ability is a set of skills that can be changed.

Adults use two basic concepts of ability (Dweck, 1999, 2002). An **entity view of ability** assumes that ability is a *stable, uncontrollable* trait—a characteristic of the individual that cannot be changed. According to this view, some people have more ability than others, but the amount each person has is set. An **incremental view of ability,** on the other

Guidelines: Coping with Anxiety

Use competition carefully.

EXAMPLES

1. Monitor activities to make sure no students are being put under undue pressure.
2. During competitive games, make sure all students involved have a reasonable chance of succeeding.
3. Experiment with cooperative learning activities.

Avoid situations in which highly anxious students will have to perform in front of large groups.

EXAMPLES

1. Ask anxious students questions that can be answered with a simple yes or no, or some other brief reply.
2. Give anxious students practice in speaking before smaller groups.

Make sure all instructions are clear. Uncertainty can lead to anxiety.

EXAMPLES

1. Write test instructions on the board or on the test itself instead of giving them orally.
2. Check with students to make sure they understand. Ask several students how they would do the first question, exercise, or sample question on a test. Correct any misconceptions.
3. If you are using a new format or starting a new type of task, give students examples or models to show how it is done.

Avoid unnecessary time pressures.

EXAMPLES

1. Give occasional take-home tests.
2. Make sure all students can complete classroom tests within the period given.

Remove some of the pressures from major tests and exams.

EXAMPLES

1. Teach test-taking skills; give practice tests; provide study guides.
2. Avoid basing most of a report-card grade on one test.
3. Make extra-credit work available to add points to course grades.
4. Use different types of items in testing because some students have difficulty with particular formats.

Develop alternatives to written tests.

EXAMPLES

1. Try oral, open-book, or group tests.
2. Have students do projects, organize portfolios of their work, make oral presentations, or create a finished product.

Teach students self-regulation strategies (Schutz & Davis, 2000).

EXAMPLES

1. Before the test: Encourage students to see the test as an important and challenging task that they have the capabilities to prepare for. Help students stay focused on the task of getting as much information as possible about the test.
2. During the test: Remind students that the test is important (but not overly important). Encourage task focus—pick out the main idea in the question, slow down, stay relaxed.
3. After the test: Think back on what went well and what could be improved. Focus on controllable attributions—study strategies, effort, careful reading of questions, relaxation strategies.

For more information about test anxiety, see:
http://www.couns.uiuc.edu/Brochures/testanx.htm

hand, suggests that ability is unstable and controllable—"an ever-expanding repertoire of skills and knowledge" (Dweck & Bempechat, 1983, p. 144). By hard work, study, or practice, knowledge can be increased and thus ability can be improved. What is your view of ability? Look back at your answers in the *Stop/Think/Write* box to see.

Young children tend to hold an exclusively incremental view of ability. Through the early elementary grades, most students believe that effort is the same as intelligence. Smart people try hard, and trying hard makes you smart. If you fail, you aren't smart and you didn't try hard (Dweck, 2000; Stipek, 2002). Children are age 11 or 12 before they can differentiate among effort, ability, and performance. About this time, they come to believe that someone who succeeds without working at all must be *really* smart. This is when beliefs about ability begin to influence motivation (Anderman & Maehr, 1994).

beliefs @ ability & effort on motivation

Students who hold an entity (unchangeable) view of intelligence tend to set performance goals to avoid looking bad in the eyes of others. They seek situations where they can look smart and protect their self-esteem. Like Safe Sumey, they keep doing what they can do well without expending too much effort or risking failure, because either

one—working hard or failing—indicates (to them) low ability. To work hard but still fail would be devastating. Students with learning disabilities are more likely to hold an entity view.

Teachers who hold entity views are quicker to form judgments about students and slower to modify their opinions when confronted with contradictory evidence (Stipek, 2002). Teachers who hold incremental views, in contrast, tend to set mastery goals and seek situations in which students can improve their skills, because improvement means getting smarter. Failure is not devastating; it simply indicates more work is needed. Ability is not threatened. Incremental theorists tend to set moderately difficult goals, the kind we have seen are the most motivating.

Beliefs about ability are related to other beliefs about what you can and cannot control in learning.

Beliefs about Causes and Control: Attribution Theory

Connect and **Extend** to **PRAXIS II™**

Attribution Theory (I, C1)
Go to the *Encyclopedia of Psychology* (http://www.psychology.org/links/Environment_Behavior_Relationships/Motivation/) and follow its link for Attribution Theory to learn more about using principles derived from this theory to boost intrinsic motivation to learn.

One well-known explanation of motivation begins with the assumption that we try to make sense of our own behavior and the behavior of others by searching for explanations and causes. To understand our own successes and failures, particularly unexpected ones, we all ask "Why?" Students ask themselves, "Why did I flunk my midterm?" or "Why did I do so well this grading period?" They may attribute their successes and failures to ability, effort, mood, knowledge, luck, help, interest, clarity of instructions, the interference of others, unfair policies, and so on. To understand the successes and failures of others, we also make attributions—that the others are smart or lucky or work hard, for example. **Attribution theories** of motivation describe how the individual's explanations, justifications, and excuses about self or others influence motivation.

Bernard Weiner is one of the main educational psychologists responsible for relating attribution theory to school learning (Weiner, 1979, 1986, 1992, 1994a, 1994b, 2000; Weiner & Graham, 1989). According to Weiner, most of the attributed causes for successes or failures can be characterized in terms of three dimensions:

1. *locus* (location of the cause—internal or external to the person),
2. *stability* (whether the cause is likely to stay the same in the near future or can change), and
3. *controllability* (whether the person can control the cause).

Every cause for success or failure can be categorized on these three dimensions. For example, luck is external (locus), unstable (stability), and uncontrollable (controllability). Table 10.3 shows some common attributions for success or failure on a test. Notice that ability is usually considered stable and uncontrollable, but incremental theorists (described above) would argue that ability is unstable and controllable. Weiner's locus and controllability dimensions are closely related to Deci's concept of *locus of causality*.

Weiner believes that these three dimensions have important implications for motivation because they affect expectancy and value. The *stability* dimension, for example, seems to be closely related to expectations about the future. If students attribute their failure to stable factors such as the difficulty of the subject, they will expect to fail in that subject in the future. But if they attribute the outcome to unstable factors such as mood or luck, they can hope for better outcomes next time. The *internal/external locus* seems to be closely related to feelings of self-esteem (Weiner, 2000). If success or failure is attributed to internal factors, success will lead to pride and increased motivation, whereas failure will diminish self-esteem. The *controllability* dimension is related to emotions such as anger, pity, gratitude, or shame. If we feel responsible for our failures, we may feel guilt; if we feel responsible for successes, we may feel proud. Failing at a task we cannot control can lead to shame or anger.

Also, feeling in control of your own learning seems to be related to choosing more difficult academic tasks, putting out more effort, using better strategies, and persisting longer in school work (Schunk, 2000; Weiner, 1994a, 1994b). Factors such as continuing discrimination against women, people of color, and individuals with special needs can affect these individuals' perceptions of their ability to control their lives (Beane, 1991; van Laar, 2000).

Attribution theories Descriptions of how individuals' explanations, justifications, and excuses influence their motivation and behavior.

TABLE 10.3

Weiner's Theory of Causal Attribution

There are many explanations students can give for why they fail a test. Below are eight reasons representing the eight combinations of locus, stability, and responsibility in Weiner's model of attributions.

Dimension Classification	Reason for Failure
Internal-stable-uncontrollable	Low aptitude
Internal-stable-controllable	Never studies
Internal-unstable-uncontrollable	Sick the day of the exam
Internal-unstable-controllable	Did not study for this particular test
External-stable-uncontrollable	School has hard requirements
External-stable-controllable	Instructor is biased
External-unstable-uncontrollable	Bad luck
External-unstable-controllable	Friends failed to help

Source: From *Human Motivation: Metaphors, Theories and Research*, by B. Weiner. Published by Sage Publications, Newbury Park, CA. Copyright © 1992 by Sage Publications. Adapted with permission of the publisher.

Attributions in the Classroom. When usually successful students fail, they often make internal, controllable attributions: They misunderstood the directions, lacked the necessary knowledge, or simply did not study hard enough, for example. As a consequence, they usually focus on strategies for succeeding next time. This response often leads to achievement, pride, and a greater feeling of control (Ames, 1992; Stipek, 2002).

The greatest motivational problems arise when students attribute failures to stable, uncontrollable causes. Such students may seem resigned to failure, depressed, helpless—what we generally call "unmotivated" (Weiner, 2000). These students respond to failure by focusing even more on their own inadequacy; their attitudes toward schoolwork may deteriorate even further (Ames, 1992). Apathy is a logical reaction to failure if students believe the causes are stable, unlikely to change, and beyond their control. In addition, students who view their failures in this light are less likely to seek help; they believe nothing and no one can help (Ames & Lau, 1982).

Teacher Actions and Student Attributions. How do students determine the causes of their successes and failures? Remember, we also make attributions about the causes of other people's successes and failures. When teachers assume that student failure is attributable to forces beyond the students' control, the teachers tend to respond with sympathy and avoid giving punishments. If, however, the failures are attributed to a controllable factor such as lack of effort, the teacher's response is more likely to be irritation or anger, and reprimands may follow. These tendencies seem to be consistent across time and cultures (Weiner, 1986, 2000).

What do students make of these reactions from their teachers? Sandra Graham (1991, 1996) gives some surprising answers. There is evidence that when teachers respond to students' mistakes with pity, praise for a "good try," or unsolicited help, the students are more likely to attribute their failure to an uncontrollable cause—usually lack of ability. For example, Graham and Barker (1990) asked subjects of various ages to rate the effort and ability of two boys viewed on a videotape. On the tape, a teacher circulated around the class while students worked. The teacher stopped to look at the two boys' papers, did not make any comments to the first boy, but said to the second, "Let me give you a hint. Don't forget to carry your tens." The second boy had not asked for help and did not appear to be stumped by the problem. All the age groups watching the tapes, even the youngest, perceived the boy who received help as being lower in ability than the boy who did not get help. It is as if the subjects read the teacher's behavior as saying, "You poor child, you just don't have the ability to do this hard work, so I will help."

Connect and **Extend** to Your **Teaching/Portfolio**

Read Clifford, M. M. (1990). Students need challenge, not easy success. *Educational Leadership*, 48(1), 22–26. Evaluate Clifford's claim that students need some experience with failure. For whom is this experience most needed?

Connect and **Extend** to the **Research**

Graham, S. (1991). A review of attribution theory in achievement contexts. *Educational Psychology Review*, 3, 5–39. This article reviews several major principles of attribution theory as they relate to achievement strivings, including the antecedents to particular self-ascriptions, the emotional consequences of causal attributions for success and failure, help-seeking and help-giving, peer acceptance and rejection, achievement evaluation, and attributional process in African American populations.

Does this mean that teachers should be critical and withhold help? Of course not! But it is a reminder that "praise as a consolation prize" for failing (Brophy, 1985) or oversolicitous help can give unintended messages. Graham (1991) suggests that many minority-group students could be the victims of well-meaning pity from teachers. Seeing the very real problems that the students face, teachers may "ease up" on requirements so the students will "experience success." But a subtle communication may accompany the pity, praise, and extra help: "You don't have the ability to do this, so I will overlook your failure." Graham says, "The pertinent question for blacks is whether their own history of academic failure makes them more likely to be the targets of sympathetic feedback from teachers and thus the recipients of low-ability cues" (1991, p. 28). This kind of benevolent feedback, even if well-intended, can be a subtle form of racism.

Beliefs about Self-Efficacy and Learned Helplessness

We have already examined one of the most important self beliefs affecting motivation: self-efficacy. **Self-efficacy** is our belief about our personal competence or effectiveness *in a given area.* Bandura (1997) defines self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). In schools, we are particularly interested in self-efficacy for learning mathematics, writing, history, science, sports, and other subjects, as well as for using learning strategies and for the many other challenges that classrooms present. Because it is a key concept in social cognitive theory, we discussed self-efficacy in depth in Chapter 9.

Self-efficacy and attributions affect each other. If success is attributed to internal or controllable causes such as ability or effort, then self-efficacy is enhanced. But if success is attributed to luck or to the intervention of others, then self-efficacy may not be strengthened. And efficacy affects attributions, too. People with a strong sense of self-efficacy for a given task ("I'm good at math") tend to attribute their failures to lack of effort ("I should have double-checked my work"). But people with a low sense of self-efficacy ("I'm terrible at math") tend to attribute their failures to lack of ability ("I'm just dumb"). So having a strong sense of self-efficacy for a certain task encourages controllable attributions, and controllable attributions increase self-efficacy. You can see that if a student held an entity view (ability cannot be changed) and a low sense of self-efficacy, motivation would be destroyed when failures were attributed to lack of ability ("I just can't do this and I'll never be able to learn") (Bandura, 1997; Pintrich & Schunk, 2002).

Whatever the label, most theorists agree that a sense of efficacy, control, or self-determination is critical if people are to feel intrinsically motivated. When people come to believe that the events and outcomes in their lives are mostly uncontrollable, they have developed **learned helplessness** (Seligman, 1975). To understand the power of learned helplessness, consider this experiment (Hiroto & Seligman, 1975): Subjects receive either solvable or unsolvable puzzles. In the next phase of the experiment, all subjects are given a series of solvable puzzles. The subjects who struggled with unsolvable problems in the first phase of the experiment usually solve significantly fewer puzzles in the second phase. They have learned that they cannot control the outcome, so why even try?

Connect and **Extend** to the **Research**

A recent study found that anxiety played a significant role in judging self-efficacy for middle-school students. See Klassen, R. M. (2002). *Motivational beliefs for Indo-Canadian and Anglo-Canadian early adolescents: A cross-cultural investigation of self and collective efficacy.* Dissertation. Simon Fraser University. Burnaby, B. C., Canada.

Self-efficacy is a factor in motivation. This student likely attributes at least part of her success to internal factors such as her own ability and effort.

Self-efficacy Beliefs about personal competence in a particular situation.

Learned helplessness The expectation, based on previous experiences with a lack of control, that all one's efforts will lead to failure.

Learned helplessness appears to cause three types of deficits: motivational, cognitive, and affective. Students who feel hopeless will be unmotivated and reluctant to attempt work. Like Hopeless Geraldo described earlier, they expect to fail, so why should they even try—thus motivation suffers. Because they are pessimistic about learning, these students miss opportunities to practice and improve skills and abilities, so they develop cognitive deficits. Finally, they often suffer from affective problems such as depression, anxiety, and listlessness (Alloy & Seligman, 1979). Once established, it is very difficult to reverse the effects of learned helplessness.

Connect and Extend to Other Chapters

The concept of learned helplessness was first introduced in Chapter 4 during the discussion of learning disabilities. Learned helplessness is also an issue for students at risk of failing, as described in Chapter 5. Consider the many factors in a classroom that might lead to learned helplessness, including physical or cognitive disabilities, racial prejudice, sex-role stereotyping, poverty, and so on.

Beliefs about Self-Worth

What are the connections between attributions and beliefs about ability, self-efficacy, and self-worth? Covington and his colleagues suggest that these factors come together in three kinds of motivational sets: *mastery-oriented*, *failure-avoiding*, and *failure-accepting*, as shown in Table 10.4 (Covington, 1992; Covington & Mueller, 2001).

Mastery-oriented students tend to value achievement and see ability as improvable (an incremental view), so they focus on mastery goals in order to increase their skills and abilities. They are not fearful of failure, because failing does not threaten their sense of competence and self-worth. This allows them to set moderately difficult goals, take risks, and cope with failure constructively. They generally attribute success to their own effort, and thus they assume responsibility for learning and have a strong sense of self-efficacy. They perform best in competitive situations, learn fast, have more self-confidence and energy, are more aroused, welcome concrete feedback (it does not threaten them), and are eager to learn "the rules of the game" so that they can succeed. All of these factors make for persistent, successful learning (Covington & Mueller, 2001; McClelland, 1985).

Failure-avoiding students tend to hold an entity view of ability, so they set performance goals. They lack a strong sense of their own competence and self-worth separate from their performance. In other words, they feel only as smart as their last test grade, so they never develop a solid sense of self-efficacy. In order to feel competent, they must protect themselves (and their self-images) from failure. If they have been generally successful, they may avoid failure like Safe Sunny, simply by taking few risks and "sticking with what they know." If, on the other hand, they have experienced a good bit of failure, then they, like Defensive Daleesha, may adopt self-defeating strategies such as feeble efforts, setting very low or ridiculously high goals, or claiming not to care. Just before a test, a student might say, "I didn't study at all!" or "All I want to do is pass." Then, any grade above passing is a success. Procrastination is another self-protective strategy. Low grades do not imply low ability if the student can claim, "I did okay considering I didn't start the term paper until last night." Some evidence suggests that blaming anxiety for poor test performance can also be a self-protective strategy (Covington & Omelich, 1987). Very little learning is going on.

Mastery-oriented students Students who focus on learning goals because they value achievement and see ability as improvable.

Failure-avoiding students Students who avoid failure by sticking to what they know, by not taking risks, or by claiming not to care about their performance.

TABLE 10.4

Mastery-Oriented, Failure-Avoiding, and Failure-Accepting Students

	Attitude toward Failure	Goals Set	Attributions	View of Ability	Strategies
Mastery-Oriented	Low fear of failure	Learning goals: moderately difficult and challenging	Effort, use of right strategy, sufficient knowledge is cause of success	Incremental; improvable	Adaptive strategies; e.g., try another way, seek help, practice/study more
Failure-Avoiding	High fear of failure	Performance goals; very hard or very easy	Lack of ability is cause of failure	Entity; set	Self-defeating strategies; e.g., make a feeble effort, pretend not to care
Failure-Accepting	Expectation of failure; depression	Performance goals or no goals	Lack of ability is cause of failure	Entity; set	Learned helplessness; likely to give up

Unfortunately, failure-avoiding strategies generally lead to the very failure the students were trying to avoid. If failures continue and excuses wear thin, the students may finally decide that they are incompetent. Their sense of self-worth and self-efficacy deteriorate. They give up and thus become **failure-accepting students.** They are convinced that their problems are due to low ability. As we saw earlier, those students who attribute failure to low ability and believe ability is fixed are likely to become depressed, apathetic, and helpless. Like Hopeless Geraldo, they have little hope for change.

Teachers may be able to prevent some failure-avoiding students from becoming failure-accepting by helping them to find new and more realistic goals. Also, some students may need support in aspiring to higher levels in the face of sexual or ethnic stereotypes about what they "should" want or what they "should not" be able to do well. This kind of support could make all the difference. Instead of pitying or excusing these students, teachers can teach them how to learn and then hold them accountable. This will help the students develop a sense of self-efficacy for learning and avoid learned helplessness.

Connect and **Extend** to Your **Teaching/Portfolio**

Think about your philosophy of teaching, a question you will be asked at most job interviews. What do you believe about motivating hard-to-reach students? How can you support the development of genuine and well-founded self-efficacy in your students? (Consult the *Guidelines* for ideas.)

Beliefs and Self-Schemas: Lessons for Teachers

If students believe they lack the ability to deal with higher mathematics, they will probably act on this belief even if their actual abilities are well above average. These students are likely to have little motivation to tackle trigonometry or calculus, because they expect to do poorly in these areas. If students believe that failing means they are stupid, they are likely to adopt many self-protective, but also self-defeating, strategies. Just telling students to "try harder" is not particularly effective. Students need real evidence that effort will pay off, that setting a higher goal will not lead to failure, that they can improve, and that abilities can be changed. They need authentic mastery experiences. The *Guidelines* provide ideas for encouraging self-efficacy and self-worth.

Failure-accepting students Students who believe their failures are due to low ability and there is little they can do about it.

How can we put together all this information about motivation? How can teachers create environments, situations, and relationships that encourage motivation? We address these questions next.

Guidelines: Encouraging Self-Efficacy and Self-Worth

Emphasize students' progress in a particular area.

EXAMPLES

1. Return to earlier material in reviews and show how "easy" it is now.
2. Encourage students to improve projects when they have learned more.
3. Keep examples of particularly good work in portfolios.

Set learning goals for your students, and model a mastery orientation for them.

EXAMPLES

1. Recognize progress and improvement.
2. Share examples of how you have developed your abilities in a given area and provide other models ofachievement who are similar to your students—no supermen or superwomen whose accomplishments seem unattainable.
3. Read stories about students who overcame physical, mental, or economic challenges.
4. Don't excuse failure because a student has problems outside school. Help the student succeed inside school.

Make specific suggestions for improvement, and revise grades when improvements are made.

EXAMPLES

1. Return work with comments noting what the students did right, what they did wrong, and why they might have made the mistakes.
2. Experiment with peer editing.
3. Show students how their revised, higher grade reflects greater competence and raises their class average.

Stress connections between past efforts and past accomplishments.

EXAMPLES

1. Have individual goal-setting and goal-review conferences with students, in which you ask students to reflect on how they solved difficult problems.
2. Confront self-defeating, failure-avoiding strategies directly.

For more information on self-efficacy, see: http://www.emory.edu/EDUCATION/mfp/self-efficacy.html

Motivation to Learn in School: On TARGET

Teachers are concerned about developing a particular kind of motivation in their students—the motivation to learn. Jere Brophy (1988) describes student **motivation to learn** as "a student tendency to find academic activities meaningful and worthwhile and to try to derive the intended academic benefits from them. Motivation to learn can be construed as both a general trait and a situation-specific state" (pp. 205–206). Motivation to learn involves more than wanting or intending to learn. It includes the quality of the student's mental efforts. For example, reading the text 10 times may indicate persistence, but motivation to learn implies more thoughtful, active study strategies, such as summarizing, elaborating the basic ideas, outlining in your own words, drawing graphs of the key relationships, and so on (Brophy, 1988).

What makes student motivation to learn a challenge in classrooms? In an interview, Jere Brophy listed five obstacles:

> First, school attendance is compulsory and curriculum content and learning activities are selected primarily on the basis of what society believes students need to learn, not on the basis of what students would choose to do if given the opportunity. . . . Second, teachers usually work with classes of 20 or more students and therefore cannot always meet each individual's needs, so some students are often bored and others are often confused or frustrated. Third, classrooms are social settings in which much that occurs is public, so that failures often produce not only personal disappointment but public embarrassment. Fourth, students are graded, and periodic reports are sent home to their parents. Finally, teachers and students often settle into familiar routines that become the "daily grind." School reduces to covering content (for the teachers) and completing assignments (for the students). (Gaedke & Shaughnessy, 2003, pp. 206–207)

In this challenging context, it would be wonderful if all our students came to us filled with the motivation to learn, but they don't. As teachers, we have three major goals. The first is to get students productively involved with the work of the class; in other words, to create a *state* of motivation to learn. The second and longer-term goal is to develop in our students the *trait* of being motivated to learn so they will be able "to educate themselves throughout their lifetime" (Bandura, 1993, p. 136). And finally, we want our students to be cognitively engaged—to think deeply about what they study. In other words, we want them to be *thoughtful* (Blumenfeld, Puro, & Mergendoller, 1992).

In this chapter we examined the roles of intrinsic and extrinsic motivation, attributions, goals, interests, emotions, and self-schemas in motivation. Table 10.5 shows how each of these factors contributes to motivation to learn.

Connect and **Extend** to Your **Teaching/Portfolio**

Relate the information in Chapter 5 to the discussion in this chapter of the challenges teachers face in helping to motivate all students.

Motivation to learn The tendency to find academic activities meaningful and worthwhile and to try to benefit from them.

TABLE 10.5

Building a Concept of Motivation to Learn

Motivation to learn is encouraged when the following six elements come together:

Source of Motivation	Optimum Characteristics of Motivation to Learn	Characteristics That Diminish Motivation to Learn
Type of Goal Set	INTRINSIC: Personal factors such as needs, interests, curiosity, enjoyment	EXTRINSIC: Environmental factors such as rewards, social pressure, punishment
Type of Involvement	LEARNING GOAL: Personal satisfaction in meeting challenges and improving; tendency to choose moderately difficult and challenging goals	PERFORMANCE GOAL: Desire for approval for performance in others' eyes; tendency to choose very easy or very difficult goals
Achievement Motivation	TASK-INVOLVED: Concerned with mastering the task	EGO-INVOLVED: Concerned with self in others' eyes.
Likely Attributions	Motivation to ACHIEVE: Mastery orientation	Motivation to AVOID FAILURE: Prone to anxiety
Beliefs about Ability	Successes and failures attributed to CONTROLLABLE effort and ability	Success and failures attributed to UNCONTROLLABLE causes
	INCREMENTAL VIEW: Belief that ability can be improved through hard work and added knowledge and skills	ENTITY VIEW: Belief that ability is a stable, uncontrollable trait

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TARGET (I, C1,2,3)

Describe the major features of the TARGET model and identify related strategies that are likely to boost motivation.

Connect and Extend to Your Teaching/Portfolio

Use the TARGET model (Table 10.6) to generate motivational strategies for the grade you will teach.

The central questions for the remainder of the chapter are: What can teachers do to encourage and support motivation to learn? How can teachers use knowledge about attributions, goals, interests, beliefs, and self-schemas to increase motivation to learn? To organize our discussion, we will use the TARGET model.

Carol Ames (1990, 1992) has identified six areas where teachers make decisions that can influence student motivation to learn: the nature of the *task* that students are asked to do, the *autonomy* students are allowed in working, how students are *recognized* for their accomplishments, *grouping* practices, *evaluation* procedures, and the scheduling of *time* in the classroom. Epstein (1989) coined the acronym TARGET to organize these areas of possible teacher influence, as shown in Table 10.6.

Tasks for Learning

To understand how an **academic task** can affect students' motivation, we need to analyze the task. Tasks can be interesting or boring for students. And tasks have different values for students.

Task Value. As you probably recall, many theories suggest that the strength of our motivation in a particular situation is determined by both our *expectation* that we can succeed and the *value* of that success to us. Students' beliefs about the value of a task seem to predict the choices they make, such as whether to enroll in advanced science classes or join a team. Efficacy expectations predict achievement in doing the task—how well the students actually perform in the advance science class or on the team (Wigfield & Eccles, 2002b).

We can think of a task value as having four components: importance, interest, utility, and cost (Eccles & Wigfield, 2001; Eccles, Wigfield, & Schiefele, 1998). **Importance** or **attainment value** is the significance of doing well on the task; this is closely tied to the needs of the individual (for example, the need to be well-liked, athletic, etc.). For instance, if someone has a strong need to appear smart and believes that a high grade on a test shows you are smart, then the test has high attainment value for that person. A second component is **interest** or **intrinsic value.** This is simply the enjoyment one gets from the activity itself. Some people like the experience of learning. Others enjoy the feeling of hard physical effort or the challenge of solving puzzles. Tasks also can have **utility value;** that is, they help us achieve a short-term or long-term goal such as earning a degree. Finally, tasks have costs—negative consequences that might follow from doing the task such as not having time to do other things or looking awkward as you perform the task.

You see from our discussion of task value that personal and environmental influences on motivation interact constantly. The task we ask students to accomplish is an aspect of the environment; it is external to the student. But the value of accomplishing the task is bound up with the internal needs, beliefs, and goals of the individual.

Authentic Tasks. Recently, there has been a great deal written about the use of authentic tasks in teaching. An **authentic task** is one that has some connection to the real-life problems and situations that students will face outside the classroom, both now and in the future. If you ask students to memorize definitions they will never use, to learn the material only because it is on the test, or to repeat work they already understand, then there can be little motivation to learn. But if the tasks are authentic, students are more likely to see the genuine utility value of the work and are also more likely to find the tasks meaningful and interesting. **Problem-based learning** is one example of the use of authentic tasks in teaching.

An example problem presented to one group of 7th and 8th graders in Illinois was, "What should be done about a nuclear waste dump site in our area?" The students soon learned that this real problem was not a simple one. Scientists disagreed about the dangers. Environmental activists demanded that the materials be removed, even if this bankrupted the company involved—one that employed many local residents. Some members of the state assembly wanted the material taken out of state, even though no place in the country was licensed to receive the toxic materials. The company believed the safest so-

Connect and Extend to the Research

See the special issue on "authentic learning" in the April 1993 issue of *Educational Leadership.*

Academic tasks The work the student must accomplish, including the content covered and the mental operations required.

Importance/Attainment value The importance of doing well on a task; how success on the task meets personal needs.

Intrinsic or interest value The enjoyment a person gets from a task.

Utility value The contribution of a task to meeting one's goals.

Authentic task Tasks that have some connection to real-life problems the students will face outside the classroom.

Problem-based learning Methods that provide students with realistic problems that don't necessarily have right answers.

TABLE 10.6

The TARGET Model for Supporting Student Motivation to Learn

Teachers make decisions in many areas that can influence motivation to learn. The TARGET acronym highlights task, autonomy, recognition, grouping, evaluation, and time.

TARGET Area	Focus	Objectives	Examples of Possible Strategies
Task	How learning tasks are structured—what the student is asked to do	Enhance intrinsic attractiveness of learning tasks Make learning meaningful	Encourage instruction that relates to students' backgrounds and experience Avoid payment (monetary and other) for attendance, grades, or achievement Foster goal setting and self-regulation
Autonomy/Responsibility	Student participation in learning/school decisions	Provide optimal freedom for students to make choices and take responsibility	Give alternatives in making assignments Ask for student comments on school life—and take them seriously Encourage students to take initiatives and evaluate their own learning Establish leadership opportunities for *all* students
Recognition	The nature and use of recognition and reward in the school setting	Provide opportunities for *all* students to be recognized for learning Recognize *progress* in goal attainment Recognize challenge seeking and innovation	Foster "personal best" awards Reduce emphasis on "honor rolls" Recognize and publicize a wide range of school-related activities of students
Grouping	The organization of school learning and experiences	Build an environment of acceptance and appreciation of all students Broaden the range of social interaction, particularly of at-risk students Enhance social skills development	Provide opportunities for cooperative learning, problem solving, and decision making Encourage multiple group membership to increase range of peer interaction Eliminate ability-grouped classes
Evaluation	The nature and use of evaluation and assessment procedures	Grading and reporting processes Practices associated with use of standardized tests Definition of goals and standards	Reduce emphasis on social comparisons of achievement Give students opportunities to improve their performance (e.g., study skills, classes) Establish grading/reporting practices that portray student progress in learning Encourage student participation in the evaluation process
Time	The scheduling of the school day	Provide opportunities for extended and significant student involvement in learning tasks Allow the learning task and student needs to dictate scheduling	Allow students to *progress at their own rate* whenever possible Encourage flexibility in the scheduling of learning experiences Give teachers greater control over time usage through, for example, block scheduling

Source: From "Reinventing Schools for Early Adolescents: Emphasizing Task Goals," by M. L. Maehr and E. M. Anderman, *The Elementary School Journal, 93.5,* pp. 604–605. Copyright © 1993 by The University of Chicago Press. Adapted with permission.

lution was to leave the materials buried. The students had to research the situation, interview parties involved, and develop recommendations to be presented to state experts and community groups. "In problem-based learning students assume the roles of scientists, historians, doctors, or others who have a real stake in the proposed problem. Motivation soars because students realize it's their problem" (Stepien & Gallagher, 1993, p. 26).

Connect and **Extend** to **Other Chapters**

See Chapter 9 for a complete discussion of problem-based learning.

Supporting Autonomy and Recognizing Accomplishment

The second area in the TARGET model involves how much choice and autonomy students are allowed. Choice in schools is not the norm. Children and adolescents spend literally thousands of hours in schools where other people decide what will happen. Yet we know that self-determination and a sense of internal locus of causality are critical to maintaining intrinsic motivation (Reeve, Nix, & Hamm, 2003). What can teachers do to support choice without creating chaos?

Connect and Extend to the Research

The June 1998 issue of *Educational Psychology Review*, edited by Karen Harris and Pat Alexander, has a series of articles describing models of integrated teaching that include student choice. One article by Ruth Garner (pp. 227–238) describes the power of bounded choices.

Supporting Choices. Like totally unguided discovery or aimless discussions, unstructured or unguided choices can be counterproductive for learning (Garner, 1998). For example, Dyson (1997) found that children become anxious and upset when directed by teachers to draw or write about anything they want in any way they want. Dyson says that students see this *unbounded choice* as a "scary void." I know that graduate students in my classes also find it disconcerting if I ask them to design a final project that will determine their grade, just as I panic when I am asked to give a talk on "whatever you want."

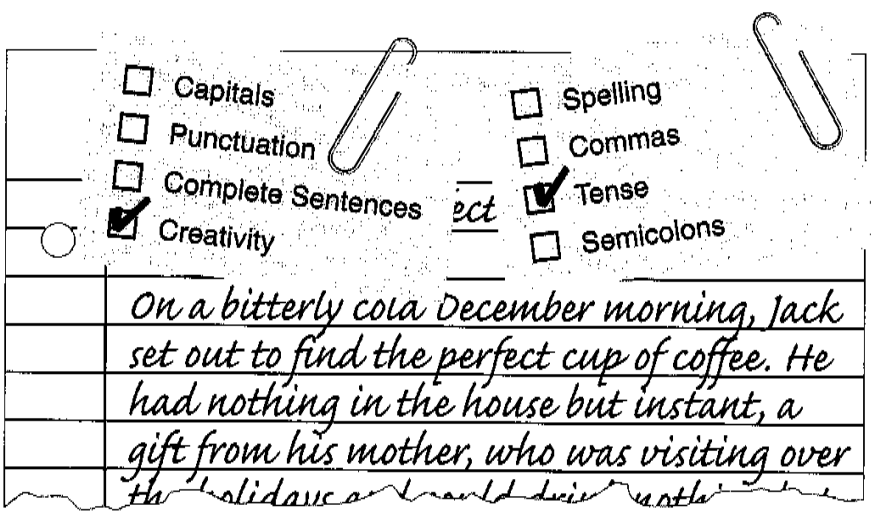
The alternative is *bounded choice*—giving students a range of options that set valuable tasks for them, but also allow them to follow personal interests. The balance must be just right: "too much autonomy is bewildering and too little is boring" (Guthrie et al., 1998, p. 185). Guthrie describes how a student in a 5th-grade class exercised her choices about researching and writing. The class was studying the life cycle of the Monarch butterfly. Each child worked in a heterogeneous team and each team had a chrysalis to observe as it grew. The class had organized a library of multilevel expository books, trade books, literary books, reference books, maps, electronic data bases, and other resources. The teacher had taught specific skills that would be needed—using an index and table of contents, setting goals, and writing summaries—but the students were able to choose topics and appropriate resources for crafting their own chapter.

Students also can exercise autonomy about how they receive feedback from the teacher or from classmates. Figure 10.1 describes a strategy called "Check It Out," in

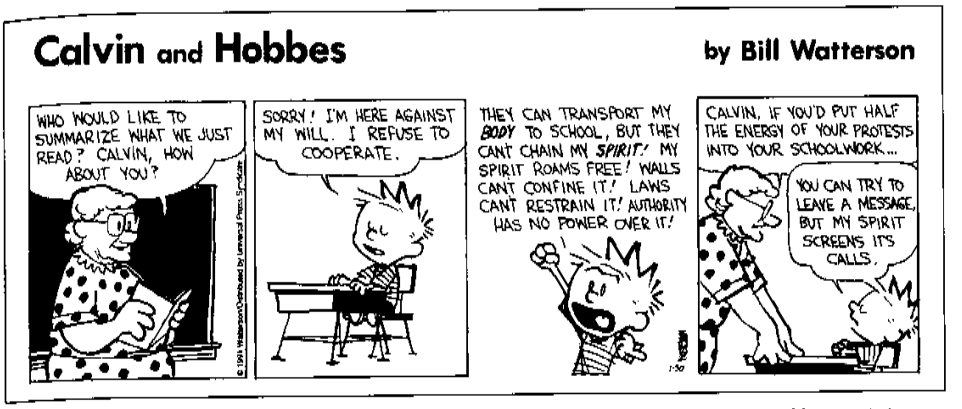
FIGURE 10.1

Student Autonomy: Check It Out

Using this technique to support student autonomy, the teacher decides on a set of skills that will be developed over a unit, but the student decides which skill(s) will be evaluated on any given assignment. Over the course of the unit, all the skills have to be "checked out." This student has indicated that she wants the teacher to "check out" her creativity and verb tense.



Source: From *150 Ways to Increase Intrinsic Motivation in the Classroom*, by James P. Raffini. Published by Allyn and Bacon, Boston, MA. Copyright © 1996 by Pearson Education. Adapted by permission of the publisher.



which students specify the skills that they want to have evaluated in a particular assignment. Over the course of a unit, all the skills have to be "checked out," but students choose when each one is evaluated.

Recognizing Accomplishment. The third TARGET area is *recognition* for accomplishments. Students should be recognized for improving on their own personal best, for tackling difficult tasks, for persistence, and for creativity—not just for performing better than others. In Chapter 6 we noted that giving students rewards for activities that they already enjoy can undermine intrinsic motivation. But nothing in teaching is simple. At times, praise can have paradoxical effects. For example, if two students succeed and the teacher praises only one of them, the message, to other children at least, may be that the praised student had less ability and had to work harder to succeed, thus earning praise. So students may use the teacher's praise or criticism as cues about capabilities—praise means I'm not very smart, so when I succeed, I deserve recognition. Criticism means my teacher thinks I'm smart and could do better (Stipek, 2002).

What sort of recognition leads to engagement? One answer comes from a study by Ruth Butler (1987). Students in the 5th and 6th grades were given interesting divergent thinking tasks followed by either individual personalized comments, standardized praise ("very good"), grades, or no feedback. Interest, performance, attributions to effort, and task involvement were higher after personalized comments. Ego-involved motivation (the desire to look good or do better than others) was greater after grades and standard praise.

Grouping, Evaluation, and Time

You may remember a teacher who made you want to work hard—someone who made a subject come alive. Or you may remember how many hours you spent practicing as a member of a team, orchestra, choir, or theater troupe. If you do, then you know the motivational power of relationships with other people.

Grouping and Goal Structures. Motivation can be greatly influenced by the ways we relate to the other people who are also involved in accomplishing a particular goal. Johnson and Johnson (1999) have labeled this interpersonal factor the **goal structure** of the task. There are three such structures: cooperative, competitive, and individualistic, as shown in Table 10.7 on the next page.

When the task involves complex learning and problem-solving skills, cooperation leads to higher achievement than competition, especially for students with lower abilities. Students learn to set attainable goals and negotiate. They become more altruistic. The interaction with peers that students enjoy so much becomes a part of the learning process. The result? The need for belonging described by Maslow is more likely to be met and motivation is increased (Stipek, 2002; Webb & Palincsar, 1996). There are many approaches to peer learning or group learning. We will examine these approaches in depth in Chapter 11.

Goal structure The way students relate to others who are also working toward a particular goal.

TABLE 10.7

Different Goal Structures

Each goal structure is associated with a different relationship between the individual and the group. This relationship influences motivation to reach the goal.

	Cooperative	Competitive	Individualistic
Definition	Students believe their goal is attainable only if other students will also reach the goal.	Students believe they will reach their goal if and only if other students do not reach the goal.	Students believe that their own attempt to reach a goal is not related to other students' attempts to reach the goal.
Examples	Team victories—each player wins only if all the team members win: a relay race, a quilting bee, a barn raising, a symphony, a play.	Golf tournament, singles tennis match, a 100-yard dash, valedictorian, Miss America pageant.	Lowering your handicap in golf, jogging, learning a new language, enjoying a museum, losing or gaining weight, stopping smoking.

Source: From *Learning Together and Alone: Cooperation, Competition, and Individualization,* (5th ed.), by D. Johnson & R. Johnson. Published by Allyn and Bacon, Boston, MA. Copyright © 1999 by Pearson Education. Adapted by permission of the publisher.

Evaluation. The greater the emphasis on competitive evaluation and grading, the more students will focus on performance goals rather than mastery. And low-achieving students who have little hope of either performing well or mastering the task may simply want to get it over with. One study of 1st graders found that low-achieving students made up answers, filled in the page with patterns, or copied from other students, just to get through their seatwork. As one student said when she finished a word/definition matching exercise, "I don't know what it means, but I did it" (Anderson, Brubaker, Alleman-Brooks, & Duffy, 1985, p. 132). On closer examination, the researchers found that the work was much too hard for these students, so they connected words and definitions at random.

How can teachers prevent students from simply focusing on the grade or doing the work "just to get finished"? The most obvious answer is to de-emphasize grades and emphasize learning in the class. Students need to understand the value of the work. Instead of saying, "You will need to know this for the test," tell students how the information will be useful in solving problems they want to solve. Suggest that the lesson will answer some interesting questions. Communicate that understanding is more important than finishing. Unfortunately, many teachers do not follow this advice. Jere Brophy (1988) reports that when he and several colleagues spent about 100 hours observing how six teachers introduced their lessons, they found that most introductions were routine, apologetic, or unenthusiastic. The introductions described procedures, made threats, emphasized finishing, or promised tests on the material.

One way to emphasize learning rather than grades is to use self-evaluation. This strategy also supports autonomy. The self-evaluation and goal planning sheet in Figure 10.2 could be adapted for almost any grade.

Time. Most experienced teachers know that there is too much work and not enough time in the school day. Even if they become engrossed in a project, students must stop and turn their attention to another class when the bell rings or when the teacher's schedule indicates it's time to move on to a new subject. Furthermore, students must progress as a group. If particular individuals can move faster or if they need more time, they may still have to follow the pace of the whole group. So scheduling often interferes with motivation by making students move faster or slower than would be appropriate or by interrupting their involvement. It is difficult to develop persistence and a sense of self-efficacy when students are not allowed to stick with a challenging activity. As a teacher, will you be able to make time for engaged and persistent learning? Some elementary classrooms have *DEAR* time—Drop Everything And Read—to give extended periods when everyone, even the teacher, reads. Some middle and high schools have block scheduling in which teachers work in teams to plan larger blocks of class time.

Connect and Extend to the Research

For a thorough review of research on different forms of cooperative learning, see O'Donnell, A. M., & O'Kelly, J. (1994). Learning from peers: Beyond the rhetoric of positive results. *Educational Psychology Review, 6,* 321–350.

Connect and Extend to the Research

Brophy (1988) reports these examples of lesson introductions that focus on procedures and threats:

"You don't expect me to give you baby work to do every day, do you?"

"My talkers are going to get a third page to do during lunch."

"If you are done by 10 o'clock, you can go outside." (p. 204)

Connect and Extend to Other Chapters

Chapter 12 discusses how to make more time for learning by decreasing disruptions, smoothing transitions, and avoiding discipline problems.

We can see how these motivational elements come together in real classrooms. Sara Dolezal and her colleagues observed and interviewed 3rd-grade teachers in eight Catholic schools and determined if their students were low, moderate, or high in their level of motivation (Dolezal, Welsh, Pressley, & Vincent, 2003). Table 10.8 on the next page summarizes the dramatic differences in these classrooms between strategies that support motivation and those that undermine it. Students in the low-engagement classes were restless and chatty as they faced their easy, undemanding seatwork. The classrooms were bare, unattractive, and filled with management problems. Instruction was disorganized. The class atmosphere was generally negative. The moderately engaged classrooms were organized to be "student friendly," with reading areas, group work area, posters, and student artwork. The teachers were warm and caring, and they connected lessons to students' background knowledge. Management routines were smooth and organized, and the class atmosphere was positive. The teachers were good at catching student attention and encouraging students to become more self-regulating, but they had trouble holding attention, probably because the tasks were too easy. Highly engaging teachers had all the positive qualities of student-friendly classrooms—positive atmosphere, smooth management routines, support for student self-regulation, and effective instruction—but they added more challenging tasks along with the support to succeed. These excellent motivators did not rely on one or two approaches to motivate their students; they applied a large repertoire of strategies from Table 10.8.

FIGURE 10.2

Self-Evaluation and Goals Planning

By completing this form, students evaluate their own work in relation to their own goals and set new goals for the future.

Name _____ Advisor _____

Subject _____ Quarter _____

1. **Self-Evaluation:**
   a. How am I doing in this course? _____
   b. What difficulties have I been having? _____
   c. How much time and effort have I been spending in this course?
   _____
   d. Do I need more help in this course? _____ If yes, how have I tried to get it?

2. **Academic Goal**
   a. My goal to achieve before the end of the quarter is _____
   b. I want to work on this goal because _____
   c. I will achieve this goal by _____

3. **Behavior or Social Goal**
   a. My goal to achieve before the end of the quarter is _____
   b. I want to work on this goal because _____
   c. I will achieve this goal by _____

Variations

Advisors may choose to use this activity at the beginning of each quarter and adapt self-evaluation and goal planning sheets to specific grade levels. Follow-up conferences are also useful for helping students evaluate their plans.

Source: From *150 Ways to Increase Intrinsic Motivation in the Classroom*, by James P. Raffini. Published by Allyn & Bacon, Boston, MA. Copyright © 1996 by Pearson Education. Adapted by permission of the publisher.

TABLE 10.8

Strategies That Support and Undermine Motivation in the Classroom

A Few Strategies That Support Motivation

Strategy	Example
Messages of accountability and high expectations	The teacher asks students to have parents review and sign some assignments.
Teacher communicates importance of work	"We need to check it for at least 1 minute, which means looking over it carefully."
Clear goals/directions	The teacher explains exactly how the students are to separate into groups and complete their nominations for their favorite book.
Connections across the curriculum	The teacher relates the concept of ratios in math to compare/contrast skills in reading.
Opportunities to learn about and practice dramatic arts	After studying about historical figures, students write and produce their own plays.
Attributions to effort	During a word game, the teacher says to a student, "Did you study last night?" The student nods. "See how it helps?"
Encouraging risk-taking	"I need a new shining face. Someone I haven't called on yet. I need a risk-taker."
Uses games and play to reinforce concept or review material	During a math lesson using balance, students spend 5 minutes weighing the favorite toy they were asked to bring in that day.
Home–school connections	As part of math science unit, a recycling activity asks families to keep a chart of everything they recycle in a week.
Multiple representations of a task	The teacher uses 4 ways to teach multiplication: "magic multipliers," sing-along multiplication facts, whole-class flash card review, "Around-the-World" game.
Positive classroom management, praise, private reprimands	"Thumbs up when you are ready to work. Table 7 has thumbs up, table 7. I like the way table 7 is waiting patiently."
Stimulating creative thought	"We are going to use our imaginations today. We are going to take a trip to an imaginary theater in our heads."
Opportunities for choice	Students can choose to use prompts for their journal writing or pick their own topic.
Teacher communicates to students that they can handle challenging tasks	"This is hard stuff and you are doing great. I know adults who have trouble with this."
Value students—communicate caring	The teacher allows a new student to sit with a buddy for the day.

A Few Strategies That Undermine Motivation

Strategy	Example
Attributions to intellect rather than effort	When students remark during a lesson, "I'm stupid" or "I'm a dork," the teacher says nothing, then replies, "Let's have someone who is smart."
Teacher emphasizes competition rather than working together	The teacher conducts a poetry contest where students read poems to class and the class members hold up cards with scores rating how well each student performed.
Few displays of student work	Public bulletin boards are used for posting grades.
No scaffolding for learning a new skill	The teacher is loud and critical when students have trouble: "Just look back in the glossary and don't miss it because you are too lazy to look it up."
Ineffective/negative feedback	"Does everyone understand?" A few students say yes and the teacher moves on.
Lack of connections	On Martin Luther King Day, the teacher leads a brief discussion of King, then the remainder of the activities are about Columbus.
Easy tasks	The teacher provides easy work and "fun" activities that teach little.
Negative class atmosphere	"Excuse me, I said page number. If you follow and listen, you would know."
Punitive classroom management	The teacher threatens bad grades if students do not look up words in the glossary.
Work that is much too difficult	The teacher assigns independent math work that only one or two students can do.
Slow pacing	The pace is set for the slowest students—others finish and have nothing to do.
Emphasis on finishing, not learning	The teacher communicates the purpose is to finish, not learn or use the vocabulary.
Sparse, unattractive classroom	There are no decorated bulletin boards, maps, charts, or displays of student work.
Poor planning	Missing handouts force the teacher to have large instead of smaller work groups.
Public punishment	All students stand, and the teacher reads a list of those who finished the assignment and they sit down. The teacher gives public lecture on responsibility to those left standing.

Source: Adapted from "How do nine third-grade teachers motivate their students?" by S. E. Dolezal, L. M. Welsh, M. Pressley, & M. Vincent. *Elementary School Journal*, 2003, 103, pp. 247–248.

Diversity and Convergences in Motivation to Learn

We have seen that motivation to learn grows from the individual's needs, goals, interests, emotions, beliefs, and attributions in interaction with the tasks set, autonomy and recognition provided, grouping structures, evaluation procedures, and time allowed.

Diversity in Motivation

Because students differ in terms of language, culture, economic privilege, personality, knowledge, and experience, they will also differ in their needs, goals, interests, and beliefs. For example, self-efficacy is a central concept in motivation because it is strong predictor of academic performance. But there are cultural differences as well. Males and African American students are more likely to be overconfident in their academic abilities, so their predictions of future achievement are less accurate than the predictions of Asian American students and female students who are much less likely to express overconfidence in their abilities. Gifted male students are less likely to be overconfident, and gifted female students are likely to underestimate their abilities, whereas students with disabilities tend to be overconfident in their sense of efficacy (Pajares, 2000).

Taking this diversity into account when designing tasks, supporting autonomy, recognizing accomplishments, grouping, making evaluations, and managing time can encourage motivation to learn. Take interest, for example. Embedding student writing tasks in cultural contexts is one way to *catch* and *hold* situational interest (Alderman, 2004; Bergin, 1999). When Latina/o immigrant students in junior-high classes moved from writing using work sheets and standard assignments to writing about such topics as immigration, bilingualism, and gang life—factors that were important to them and to their families—their papers got longer and the writing quality was better (Rueda & Moll, 1994).

Language is a central factor in students' connections with the school. When bilingual students are encouraged to draw on both English and their heritage language, motivation and participation can increase. Robert Jimenez (2000) found in his study of bilingual Latino/a students that successful readers saw reading as a process of making sense; they used both of their languages to understand the material. For instance, they might look for Spanish word parts in English words to help them translate. Less-successful students had a different goal. They believed that reading just meant saying the words correctly in English. It is likely their interest and sense of efficacy for reading in English would be less, too.

Encouraging students to capitalize on their cultural knowledge can increase motivation and meaning in school. But this doesn't happen often enough. "The lack of congruence between students' life experiences and instruction in most schools has been well documented, especially for low income students, students of color, and English language learners" (Committee on Increasing High School Students' Engagement and Motivation to Learn, 2004, p. 66).

Taking cultural diversity into account when designing tasks capitalizes on students' cultural knowledge and can increase motivation and meaning in school.

Convergences: Strategies to Encourage Motivation

Connect and **Extend** to Your **Teaching/Portfolio**

Adapt all the *Guidelines* from the chapter for the age group you plan to teach.

Until four basic conditions are met for every student and in every classroom, no motivational strategies will succeed. First, the classroom must be relatively organized and free from constant interruptions and disruptions. (Chapter 12 will give you the information you need to make sure this requirement is met.) Second, the teacher must be a patient, supportive person who never embarrasses students for mistakes. Everyone in the class should see mistakes as opportunities for learning (Clifford, 1990, 1991). Third, the work must be challenging, but reasonable. If work is too easy or too difficult, students will have little motivation to learn. They will focus on finishing, not on learning. Finally, the learning tasks must be authentic, and what makes a task authentic is influenced by culture, as we have seen (Bergin, 1999; Brophy & Kher, 1986; Stipek, 1993).

Once these four basic conditions are met, the influences on students' motivation to learn in a particular situation can be summarized in four questions: Can I succeed at this task? Do I want to succeed? What do I need to do to succeed? Do I belong? (Committee on Increasing High School Students' Engagement and Motivation to Learn, 2004; Eccles & Wigfield, 1985). We want students to have confidence in their ability so they will approach learning with energy and enthusiasm. We want them to see the value of the tasks involved and work to learn, not just try to get the grade or get finished. We want students to believe that success will come when they apply good learning strategies instead of believing that their only option is to use self-defeating, failure-avoiding, face-saving strategies. When things get difficult, we want students to stay focused on the task, and not get so worried about failure that they "freeze." And we want students to feel as though they belong in school—that their teachers and classmates care about them and can be trusted.

Can I Do It? Building Confidence and Positive Expectations No amount of encouragement or "cheerleading" will substitute for real accomplishment. To ensure genuine progress:

1. *Begin work at the students' level and move in small steps.* The pace should be brisk, but not so fast that students have to move to the next step before they understand the one they are working on. This may require assigning different tasks to different students. One possibility is to have very easy and very difficult questions on every test and assignment, so all students are both successful and challenged. When grades are required, make sure all the students in class have a chance to make at least a C if they work hard.
2. *Make sure learning goals are clear, specific, and possible to reach in the near future.* When long-term projects are planned, break the work into subgoals and help students feel a sense of progress toward the long-term goal. If possible, give students a range of goals at different levels of difficulty and let them choose.
3. *Stress self-comparison, not comparison with others.* Help students see the progress they are making by showing them how to use self-management strategies such as those described in Chapter 6. Give specific feedback and corrections. Tell students what they are doing right as well as what is wrong and *why* it is wrong. Periodically, give students a question or problem that was once hard for them but now seems easy. Point out how much they have improved.
4. *Communicate to students that academic ability is improvable* and specific to the task at hand. In other words, the fact that a student has trouble in algebra doesn't necessarily mean that geometry will be difficult or that he or she is a bad English student. Don't undermine your efforts to stress improvement by displaying only the 100% papers on the bulletin board.
5. *Model good problem solving*, especially when *you* have to try several approaches. Students need to see that learning is not smooth and error-free, even for the teacher.

Do I Want to Do It? Seeing the Value of Learning Teachers can use intrinsic and extrinsic motivation strategies to help students see the value of the learning task.

Attainment and Intrinsic Value. To establish attainment value, we must connect the learning task with the needs of the students. First, it must be possible for students to meet their needs for safety, belonging, and achievement in our classes. The classroom should not be a frightening or lonely place. Second, we must be sure that sexual or ethnic stereo-

types do not interfere with motivation. For example, we must make it clear that both women and men can be high achievers in all subjects and that no subjects are the territory of only one sex. It is not "unfeminine" to be strong in mathematics, science, car mechanics, or sports. It is not "unmasculine" to be good in literature, art, music, or French.

There are many strategies for encouraging *intrinsic* (interest) motivation. Several of the following are taken from Brophy (1988).

1. *Tie class activities to student interests* in sports, music, current events, pets, common problems or conflicts with family and friends, fads, television and cinema personalities, or other significant features of their lives (Schiefele, 1991). But be sure you know what you are talking about. For example, if you use a verse from a Mariah Carey song to make a point, you had better have some knowledge of the music and the performer. When possible, give students choices of research paper or reading topics so they can follow their own interests.
2. *Arouse curiosity.* Point out puzzling discrepancies between students' beliefs and the facts. For example, Stipek (1993) describes a teacher who asked her 5th-grade class if there were "people" on some of the other planets. When the students said yes, the teacher asked if people needed oxygen to breathe. Since the students had just learned this fact, they responded yes to this question also. Then the teacher told them that there is no oxygen in the atmosphere of the other planets. This surprising discrepancy between what the children knew about oxygen and what they believed about life on other planets led to a rousing discussion of the atmospheres of other planets, the kinds of beings that could survive in these atmospheres, and so on. A straight lecture on the atmosphere of the planets might have put the students to sleep, but this discussion led to real interest in the subject.
3. *Make the learning task fun.* Many lessons can be taught through simulations or games, as you saw in the *Point/Counterpoint* on making learning fun. Used appropriately so that the activity connects with learning, these experiences can be very worthwhile and fun, too.
4. *Make use of novelty and familiarity.* Don't overuse a few teaching approaches or motivational strategies. We all need some variety. Varying the goal structures of tasks (cooperative, competitive, individualistic) can help, as can using different teaching media. When the material being covered in class is abstract or unfamiliar to students, try to connect it to something they know and understand. For example, talk about the size of a large area, such as the Acropolis in Athens, in terms of football fields. Brophy (1988) describes one teacher who read a brief passage from *Spartacus* to personalize the unit on slavery in the ancient world.

Instrumental Value. Sometimes it is difficult to encourage intrinsic motivation, and so teachers must rely on the utility or "instrumental" value of tasks. It is important to learn many skills because they will be needed in more advanced classes or for life outside school.

1. When these connections are not obvious, you should *explain the connections to your students.* Jeanette Abi-Nader (1991) describes one project, the PLAN program, that makes these connections come alive for Hispanic high-school students. The three major strategies used in the program to focus students' attention on their future are: (1) working with mentors and models—often PLAN graduates—who give advice about how to choose courses, budget time, take notes, and deal with cultural differences in college; (2) storytelling about the achievements of former students—sometimes the college term papers of former students are posted on PLAN bulletin boards; and (3) filling the classroom with future-oriented talk such as "When you go to college, you will encounter these situations" or, "You're at a parents' meeting—you want a good education for your children—and you are the ones who must speak up; that's why it is important to learn public speaking skills" (p. 548).
2. In some situations, teachers can *provide incentives and rewards for learning* (see Chapter 6). Remember, though, that giving rewards when students are already interested in the activity may undermine intrinsic motivation.
3. Use *ill-structured problems and authentic tasks* in teaching. Connect problems in school to real problems outside.

Connect and Extend to PRAXIS II™

Promoting Intrinsic Motivation to Learn (I, C2, 3)

For a set of practical tips, guidelines, and suggestions for boosting and maintaining motivation to learn, go to *Increasing Student Engagement and Motivation: From Time-on-Task to Homework* (http://www.nwrel.org/request/oct00/textonly.html).

Connect and Extend to the Research

Abi-Nader, J. (1991). Creating a vision of the future: Strategies for motivating minority students. *Phi Delta Kappan, 72,* 546–549. *Focus Questions:* Why do minority-group students sometimes find schooling unmotivating? What can be done?

Family and Community Partnerships

Guidelines: Motivation to Learn

Understand family goals for children.

EXAMPLES

1. In an informal setting, around coffee or snacks, meet with families individually or in small groups to listen to what they want for their children.
2. Mail out questionnaires or send response cards home with students, asking what skills the families believe their children most need to work on. Pick one goal for each child and develop a plan for working toward the goal both inside and outside school. Share the plan with the families and ask for feedback.

Identify student and family interests that can be related to goals.

EXAMPLES

1. Ask a member of the family to share a skill or hobby.
2. Identify "family favorites"—favorite foods, music, vacations, sports, colors, activities, hymns, movies, games, snacks, recipes, memories. Tie class lessons to interests.

Give families a way to track progress toward goals.

EXAMPLES

1. Provide simple "progress charts" or goal cards that can be posted on the refrigerator.
2. Ask for parents' feedback (and mean it) about your effectiveness in helping their children.

Work with families to build confidence and positive expectations.

EXAMPLES

1. Avoid comparing one child in a family to another during conferences and discussions with family members.
2. Ask family members to highlight strong points of homework assignments. They might attach a note to assignments describing the three best aspects of the work and one element that could be improved.

Make families partners in showing the value of learning.

EXAMPLES

1. Invite family members to the class to demonstrate how they use mathematics or writing in their work.
2. Involve parents in identifying skills and knowledge that could be applied at home and prove helpful to the family right now, for example, keeping records on service agencies, writing letters of complaint to department stores or landlords, or researching vacation destinations.

Provide resources that build skill and will for families.

EXAMPLES

1. Give family members simple strategies for helping their children improve study skills.
2. Involve older students in a "homework hotline" telephone network for helping younger students.

Have frequent celebrations of learning.

EXAMPLES

1. Invite families to a "museum" at the end of a unit on dinosaurs. Students create the museum in the auditorium, library, or cafeteria. After visiting the museum, families go to the classroom to examine their child's portfolio for the unit.
2. Place mini-exhibits of student work at local grocery stores, libraries, or community centers.

For more information on family partnerships and motivation, see: http://www.nacsp.org/ContentLoad.do?contentId=896

What Do I Need to Do to Succeed? Staying Focused on the Task When students encounter difficulties, as they must if they are working at a challenging level, they need to keep their attention on the task. If the focus shifts to worries about performance, fear of failure, or concern with looking smart, then motivation to learn is lost.

1. *Give students frequent opportunities to respond* through questions and answers, short assignments, or demonstrations of skills. Make sure you check the students' answers so you can correct problems quickly. You don't want students to practice errors too long. Computer learning programs give students the immediate feedback they need to correct errors before they become habits.
2. When possible, *have students create a finished product.* They will be more persistent and focused on the task when the end is in sight. We all have experienced the power

of the need for closure. For example, I often begin a house-painting project thinking I will work for just an hour and then find myself still painting hours later because I want to see the finished product.

3. *Avoid heavy emphasis on grades and competition.* An emphasis on grades forces students to be ego-involved rather than task-involved. Anxious students are especially hard hit by highly competitive evaluation.
4. *Reduce the task risk without oversimplifying the task.* When tasks are risky (failure is likely and the consequences of failing are grave), student motivation suffers. For difficult, complex, or ambiguous tasks, provide students with plenty of time, support, resources, help, and the chance to revise or improve work.
5. *Model motivation to learn for your students.* Talk about your interest in the subject and how you deal with difficult learning problems.
6. *Teach the particular learning tactics* that students will need to master the material being studied. Show students how to learn and remember so they won't be forced to fall back on self-defeating strategies or rote memory.

Do I Belong in This Classroom? This last question will take more than a page or two to address, so I have devoted a large part of the next chapter (Chapter 11) to the notion of engagement and belonging. We will look at cooperative learning and at creating learning communities. The support of families can be helpful as you design strategies for your students. The *Family and Community Partnerships Guidelines* on page 406 give ideas for working with families.

Connect and **Extend** to Your **Teaching/Portfolio**

Add some ideas for parent involvement from this chapter to your Portfolio.

SUMMARY TABLE

What Is Motivation? (pp. 372–377)

Define motivation. Motivation is an internal state that arouses, directs, and maintains behavior. The study of motivation focuses on how and why people initiate actions directed toward specific goals, how long it takes them to get started in the activity, how intensively they are involved in the activity, how persistent they are in their attempts to reach these goals, and what they are thinking and feeling along the way.

What is the difference between intrinsic and extrinsic motivation? Intrinsic motivation is the natural tendency to seek out and conquer challenges as we pursue personal interests and exercise capabilities—it is motivation to do something when we don't have to. Extrinsic motivation is based on factors not related to the activity itself. We are not really interested in the activity for its own sake; we care only about what it will gain us.

How does locus of causality apply to motivation? The essential difference between intrinsic and extrinsic motivation is the person's reason for acting, that is, whether the locus of causality for the action is inside or outside the person. If the locus is internal, the motivation is intrinsic; if the locus is external, the motivation is extrinsic. Most motivation has elements of both. In fact, intrinsic and extrinsic motivation may be two separate tendencies—both can operate at the same time in a given situation.

What are the key factors in motivation according to a behavioral viewpoint? A humanistic viewpoint? A cognitive viewpoint? A sociocultural viewpoint? Behaviorists tend to emphasize extrinsic motivation caused by incentives, rewards, and punishment. Humanistic views stress the intrinsic motivation created by the need for personal growth, fulfillment, and self-determination. Cognitive views stress a person's active search for meaning, understanding, and competence, and the power of the individual's attributions and interpretations. Sociocultural views emphasize legitimate engaged participation and identity within a community.

Distinguish between deficiency needs and being needs in Maslow's theory. Maslow called four lower-level needs—survival, safety, belonging, and self-esteem—deficiency needs. When these needs are satisfied, the motivation for fulfilling them decreases. He labeled the three higher-level needs—intellectual achievement, aesthetic appreciation, and self-actualization—being needs. When they are met, a person's motivation increases to seek further fulfillment.

What are expectancy × value theories? Expectancy × value theories suggest that motivation to reach a goal is the product

of our expectations for success and the value of the goal to us. If either is zero, our motivation is zero also.

What is legitimate peripheral participation? Legitimate peripheral participation means that beginners are genuinely involved in the work of the group, even if their abilities are undeveloped and their contributions are small. The identities of the novice and the expert are bound up in their participation in the community. They are motivated to learn the values and practices of the community to keep their identity as community members.

Motivation An internal state that arouses, directs, and maintains behavior.

Intrinsic motivation Motivation associated with activities that are their own reward.

Extrinsic motivation Motivation created by external factors such as rewards and punishments.

Locus of causality The location—internal or external—of the cause of behavior.

Reward An attractive object or event supplied as a consequence of a behavior.

Incentive An object or event that encourages or discourages behavior.

Humanistic interpretation Approach to motivation that emphasizes personal freedom, choice, self-determination, and striving for personal growth.

Hierarchy of needs Maslow's model of seven levels of human needs, from basic physiological requirements to the need for self-actualization.

Self-actualization Fulfilling one's potential.

Deficiency needs Maslow's four lower-level needs, which must be satisfied first.

Being needs Maslow's three higher-level needs, sometimes called growth needs.

Expectancy × value theories Explanations of motivation that emphasize individuals' expectations for success combined with their valuing of the goal.

Sociocultural views of motivation Perspectives that emphasize participation, identities, and interpersonal relations within communities of practice.

Legitimate peripheral participation Genuine involvement in the work of the group, even if your abilities are undeveloped and contributions are small.

Needs: Competence, Autonomy, and Relatedness (pp. 377–379)

What are the basic needs that affect motivation and how does self-determination affect motivation? Self-determination theory suggests that motivation is affected by the need for competence, autonomy and control, and relatedness. When students experience self-determination, they are intrinsically motivated—they are more interested in their work, have a greater sense of self-esteem, and learn more. Whether students experience self-determination depends in part on if the teacher's communications with students provide information or seek to control them. In addition, teachers must acknowledge the students' perspective, offer choices, provide rationales for limits, and treat poor performance as a problem to be solved rather than a target for criticism.

Need for autonomy The desire to have our own wishes, rather than external rewards or pressures, determine our actions.

Cognitive evaluation theory Suggests that events affect motivation through the individual's perception of the events as controlling behavior or providing information.

Goal Orientations and Motivation

(pp. 380–383)

What kinds of goals are the most motivating? Goals increase motivation if they are specific, moderately difficult, and able to be reached in the near future.

Describe mastery, performance, work-avoidant, and social goals. A mastery goal is the intention to gain knowledge and master skills, leading students to seek challenges and persist when they encounter difficulties. A performance goal is the intention to get good grades or to appear smarter or more capable than others, leading students to be preoccupied with themselves and how they appear (ego-involved learners). Students can approach or avoid these two kinds of goals—the problems are greatest with avoidance. Another kind of avoidance is evident with work-avoidant learners, who simply want to find the easiest way to handle the situation. Students with social goals can be supported or hindered in their learning, depending on the specific goal (i.e., have fun with friends or bring honor to the family).

What makes goal-setting effective in the classroom? In order for goal-setting to be effective in the classroom, students need accurate feedback about their progress toward goals and they must accept the goals set. Generally, students are more willing to adopt goals that seem realistic, reasonably difficult, and meaningful, and for which good reasons are given for the value of the goals.

Goal What an individual strives to accomplish.

Goal orientations Patterns of beliefs about goals related to achievement in school.

Mastery goal A personal intention to improve abilities and learn, no matter how performance suffers.

Task-involved learners Students who focus on mastering the task or solving the problem.

Performance goal A personal intention to seem competent or perform well in the eyes of others.

Ego-involved learners Students who focus on how well they are performing and how they are judged by others.

Work-avoidant learners Students who don't want to learn or to look smart, but just want to avoid work.

Social goals A wide variety of needs and motives to be connected to others or part of a group.

Interests and Emotions (pp. 383–388)

How do interests and emotions affect learning? Learning and information processing are influenced by emotion. Students are more likely to pay attention to, learn, and remember events, images, and readings that provoke emotional responses or that are related to their personal interests. However, there are cautions in responding to students' interests. "Seductive details," interesting bits of information that are not central to the learning, can hinder learning.

What is the role of arousal in learning? There appears to be an optimum level of arousal for most activities. Generally speaking, a higher level of arousal is helpful on simple tasks, but lower levels of arousal are better for complex tasks. When arousal is too low, teachers can stimulate curiosity by pointing out gaps in knowledge or using variety in activities. Severe anxiety is an example of arousal that is too high for optimal learning.

How does anxiety interfere with learning? Anxiety can be the cause or the result of poor performance; it can interfere with attention to, learning of, and retrieval of information. Many anxious students need help in developing effective test-taking and study skills.

Arousal Physical and psychological reactions causing a person to be alert, attentive, wide awake.

Anxiety General uneasiness, a feeling of tension.

Beliefs and Self-Schemas (pp. 388–394)

How do beliefs about ability affect motivation? When people hold an entity theory of ability—that is, they believe that ability is fixed—they tend to set performance goals and strive to protect themselves from failure. When they believe ability is improvable (an incremental theory), however, they tend to set mastery goals and handle failure constructively.

What are the three dimensions of attributions in Weiner's theory? According to Weiner, most of the attributed causes for successes or failures can be characterized in terms of three dimensions: *locus* (location of the cause internal or external to the person), *stability* (whether the cause stays the same or can change), and *responsibility* (whether the person can control the cause). The greatest motivational problems arise when students attribute failures to stable, uncontrollable causes. These students may seem resigned to failure, depressed, helpless—what we generally call "unmotivated."

What is self-efficacy, and how does it relate to learned helplessness? Self-efficacy is a belief about personal competence in a particular situation such as learning or teaching fractions. A sense of efficacy, control, or self-determination is critical if people are to feel intrinsically motivated. When people come to believe that the events and outcomes in their lives are mostly uncontrollable, they have developed learned helplessness, which is associated with three types of deficits: motivational, cognitive, and affective. Students who feel hopeless will be unmotivated and reluctant to attempt work. They miss opportunities to practice and improve skills and abilities, so they develop cognitive deficits and they often suffer from affective problems such as depression, anxiety, and listlessness.

How does self-worth influence motivation? Mastery-oriented students tend to value achievement and see ability as improvable, so they focus on mastery goals, take risks, and cope with failure constructively. A low sense of self-worth seems to be linked with the failure-avoiding and failure-accepting strategies intended to protect the individual from the consequences of failure. These strategies may seem to help in the short term, but are damaging to motivation and self-esteem in the long run.

Entity view of ability Belief that ability is a fixed characteristic that cannot be changed.

Incremental view of ability Belief that ability is a set of skills that can be changed.

Attribution theories Descriptions of how individuals' explanations, justifications, and excuses influence their motivation and behavior.

Self-efficacy Beliefs about personal competence in a particular situation.

Learned helplessness The expectation, based on previous experiences with a lack of control, that all one's efforts will lead to failure.

Mastery-oriented students Students who focus on learning goals because they value achievement and see ability as improvable.

Failure-avoiding students Students who avoid failure by sticking to what they know, by not taking risks, or by claiming not to care about their performance.

Failure-accepting students Students who believe their failures are due to low ability and there is little they can do about it.

Motivation to Learn in School: On TARGET (pp. 395–402)

Define motivation to learn. Teachers are interested in a particular kind of motivation—student motivation to learn. Student motivation to learn is both a trait and a state. It involves taking academic work seriously, trying to get the most from it, and applying appropriate learning strategies in the process.

What does TARGET stand for? TARGET is an acronym for the six areas where teachers make decisions that can influence student motivation to learn: the nature of the *task* that students are asked to do, the *autonomy* students are allowed in

working, how students are *recognized* for their accomplishments, *grouping* practices, *evaluation* procedures, and the scheduling of *time* in the classroom.

How do tasks affect motivation? The tasks that teachers set affect motivation. When students encounter tasks that are related to their interests, stimulate their curiosity, or are connected to real-life situations, the students are more likely to be motivated to learn. Tasks can have attainment, intrinsic, or utility value for students. Attainment value is the importance to the student of succeeding. Intrinsic value is the enjoyment the student gets from the task. Utility value is determined by how much the task contributes to reaching short-term or long-term goals.

Distinguish between bounded and unbounded choices. Like totally unguided discovery or aimless discussions, unstructured or unbounded choices can be counterproductive for learning. The alternative is bounded choice—giving students a range of options that set out valuable tasks for them, but also allow them to follow personal interests. The balance must be just right so that students are not bewildered by too much choice or bored by too little room to explore.

How can recognition undermine motivation and a sense of self-efficacy? Recognition and reward in the classroom will support motivation to learn if the recognition is for personal progress rather than competitive victories. Praise and rewards should focus on students' growing competence. At times, praise can have paradoxical effects when students use the teacher's praise or criticism as cues about capabilities.

List three goal structures and distinguish among them. How students relate to their peers in the classroom is influenced by the goal structure of the activities. Goal structures can be competitive, individualistic, or cooperative. Cooperative goal structures can encourage motivation and increase learning, especially for low-achieving students.

How does evaluative climate affect goal-setting? The more competitive the grading, the more students set performance goals and focus on "looking competent," that is, the more they are ego-involved. When the focus is on performing rather than learning, students often see the goal of classroom tasks as simply finishing, especially if the work is difficult.

What are some effects of time on motivation? In order to foster motivation to learn, teachers should be flexible in their use of time in the classroom. Students who are forced to move faster or slower than they should or who are interrupted as they become involved in a project are not likely to develop persistence for learning.

Motivation to learn The tendency to find academic activities meaningful and worthwhile and to try to benefit from them.

Academic tasks The work the student must accomplish, including the content covered and the mental operations required.

Importance/attainment value The importance of doing well on a task; how success on the task meets personal needs.

Intrinsic or interest value The enjoyment a person gets from a task.

Utility value The contribution of a task to meeting one's goals.

Authentic task Tasks that have some connection to real-life problems the students will face outside the classroom.

Problem-based learning Methods that provide students with realistic problems that don't necessarily have right answers.

Goal structure The way students relate to others who are also working toward a particular goal.

Consider these questions as you reflect on the case at the beginning of the chapter: How much *self-determination* did you have in choosing to work in this school district and in taking this assignment? What kinds of *expectations* are being communicated to you when you request resources? Are the curriculum and the district-wide assessments causing you to establish *goals* for yourself and your students?

What Would They Do?

Here is how some practicing teachers responded to motivate students when resources are slim.

Aimee Fredette **Second Grade Teacher,**
Fisher Elementary School, Walpole, Massachusetts

A very effective way that I use to get the children curious and interested is to pose a question to the class before the start of a lesson. This gives the children a focus for the lesson. As the year progresses, the children begin coming up with questions of their own. Another very successful way to spark interest and curiosity is the use of three-column activators, a brainstorming activity that the teacher and students do together. The students brainstorm WHAT WE THINK WE KNOW about the topic. The teacher records *all* responses, writing them on chart paper. Then the children brainstorm WHAT WE WANT TO KNOW about the topic. Again the teacher would record their responses. The third column, titled WHAT WE HAVE LEARNED, is added to as the theme progresses. The first two columns are referred to as the children learn about the theme.

Danielle Hartman **Second Grade Teacher,**
Claymont Elementary School, Ballwin, Missouri

First of all, don't get discouraged. You don't need a textbook in order to be a successful teacher. Look over the district's curriculum guides and see what the objectives are for each unit you will be teaching. Once you know the objectives, get creative. Keeping the students motivated and interested in learning is essential. By giving them choice and using a variety of teaching methods you will allow them to stay actively engaged in their learning. You will be amazed at what the students will come up with when they are given choices.

Michael Yasis
L.H. Tanglen Elementary School, Minnetonka, Minnesota

Most learning is acquired through active learning and participation. Therefore, the workbooks that focus on drill and practice, if given as the primary source of learning, most likely would bore the students. I would approach this situation by first engaging the students in a discussion to assess their prior knowledge. I would then challenge and extend their understanding of the concepts through guided discovery, building on similar examples from the "boring" workbooks. While they work on the concepts independently in their workbooks, their confidence and self-esteem will increase.

Kelly McElroy Bonin **High School Counselor,**
Klein Oak High School, Spring, Texas

Simply being excited to be working with the 3rd graders and showing interest and enthusiasm for the subject matter should arouse the students' interest and encourage them to learn. How many times have you heard it said, "Mrs. Energy was the best teacher I ever had. She took the most boring, difficult subject and made it fun and interesting." I have heard this so many times both as a student and as a teacher, and it proves my point. Just the fact that the teacher is excited about the material shows the students that this is important information that they need, plus they are curious about the material when they respect and like their teacher. If I felt like the difficulty level of the text books was too great, I would have to break the lessons down into smaller increments and use different techniques—discussion, re-teaching, group projects, etc.—to enrich the students and adapt to their level of learning. When your students are motivated, they can accomplish anything—it doesn't matter what materials are available to them, what the difficulty level of the textbook is, and so on. Kids will be motivated when their teacher truly cares about them, is passionate about the material, and makes school interesting.

Pam Gaskill **Second Grade Teacher,**
Riverside Elementary School, Dublin, Ohio

Teaching is inherently creative. Use your time and creativity this summer to acquaint yourself with the required objectives and think about ways in which you can make them meaningful and relevant to your students. Explore other available resources in the community, such as libraries, speakers' bureaus, and resource centers. Plan to incorporate a variety of activities such as videos, group work, field trips, projects, and speakers so that your students will remain interested and involved. Utilize materials that your students have access to from home—books, videos, artifacts, Internet printouts. It is amazing how cooperative parents can be when asked to help in specified ways. You might even make use of the old workbook pages, not in the traditional way, but for cooperative work. You can facilitate student success by pairing weaker readers with more competent readers to discuss and complete the worksheets. Stress that everyone needs to work together to learn the material. Active participation and engagement with the materials will help your students to construct their own meanings more effectively.