MOTIVATION IN LEARNING AND TEACHING

MOTIVATION IN LEARNING AND TEACHING

WHAT WOULD YOU DO?

TEACHERS' CASEBOOK: Motivating Students When Resources Are Thin

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 materials available are some aging texts and the workbooks that go with them. Every idea you have suggested for software, simulation games, DVDs, field trips, 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.

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?

thrashem / Shutterstock.com

OVERVIEW AND OBJECTIVES

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 five general theories of motivation: behavioral, humanistic, cognitive, social cognitive, and sociocultural. Next, we consider more closely several personal factors that frequently appear in discussions of motivation: needs, goal orientations, beliefs and self-perceptions, interests and curiosity, emotions, and anxiety.

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:

Objective 1: Define motivation and differentiate among five theoretical explanations for learner motivation.
Objective 2: Explain how learners' needs influence their motivation to learn.
Objective 3: Describe the different kinds of goal orientations and their influences on motivation.
Objective 4: Discuss how students' beliefs and attributions can influence motivation.
Objective 5: Describe the roles of interests, curiosity, emotions, and anxiety in motivation.
Objective 6: Explain how teachers can influence and encourage students' motivation to learn.

Students' motivation has a direct and powerful impact on their social interactions and academic achievement in your classroom. Students with the same abilities and prior knowledge may perform quite differently, based on their motivation (Wigfield & Wentzel, 2007). So how does that work? Let's start with a basic question.

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 engrossed and focused or is he just going through the motions?
4. What causes someone to persist or to give up? Will a student read the entire Shakespeare assignment or just a few pages?
5. What is the person 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

Many factors influence motivation and engaged learning. To get a sense of the complexity of motivation, let's step into a high-school science classroom just after the teacher has given directions for a lab 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 in doing the work.

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 he never turns in homework. Spenser is satisfied with the C he can 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."

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

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 Each of those students has problems with at least one of the five areas of motivation: (1) choices, (2) getting started, (3) intensity, (4) persistence, or (5) thoughts and feelings. Can you diagnose the problems? The answers are on the next page •

Each student presents a different motivational challenge, yet you have to figure out how to motivate and 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 explanation could be drives, basic desires, 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, a curiosity about mechanical objects, or an enduring interest in art, so they work hard to achieve, avoid tests, tinker endlessly in their garages, 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.

A classic distinction is made between intrinsic and extrinsic motivation. **Intrinsic motivation** is the natural human tendency to seek out and conquer challenges as we pursue personal interests and exercise our capabilities. When we are intrinsically motivated, we do not need incentives or punishments, because the activity itself is satisfying and rewarding (Anderman & Anderman, 2010; Deci & Ryan, 2002; Reiss, 2004). Satisfied Spenser studies chemistry outside school simply because he loves learning about chemistry; no one makes him do it. Intrinsic motivation is associated with many positive outcomes in school such as academic achievement, creativity, reading comprehension and enjoyment, and using deep learning strategies (Corpus, McClintic-Gilbert, & Hayenga, 2009).

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 Sumey works for the grade; she has little interest in the subject itself. Extrinsic motivation has been associated with negative emotions, poor academic achievement, and maladaptive learning strategies (Corpus et al., 2009).

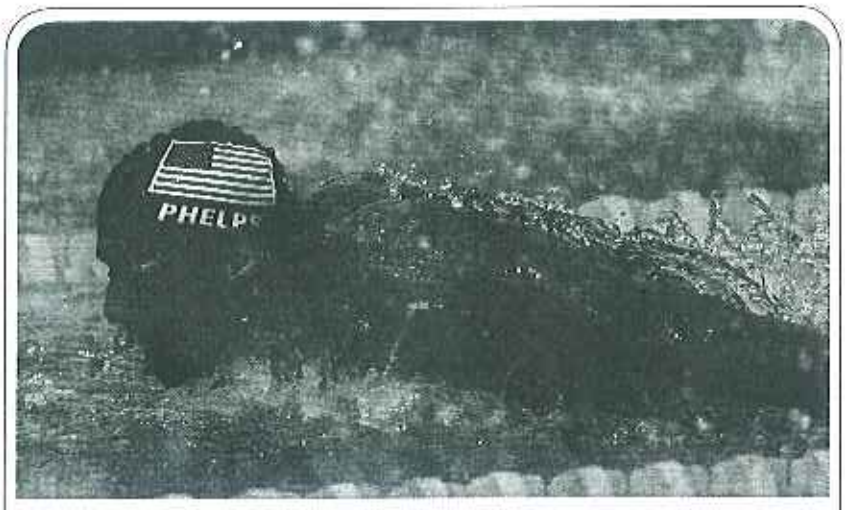
According to psychologists who adopt the intrinsic/extrinsic concept of motivation, it is impossible to tell just by looking if a behavior is intrinsically or extrinsically motivated. The essential difference between the two types of motivation is the student's *reason* for acting, that is, whether the **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, 2002; Reeve & Jang, 2006a, 2006b).

As you think about your own motivation, you probably realize that the dichotomy between intrinsic and extrinsic motivation is too either/or—too all-or-nothing. There are two explanations that avoid either/or thinking. One is that our activities fall along a continuum from fully self-determined (intrinsic motivation) to fully determined by others

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.



FOR THE MEDAL ONLY? Is this athlete motivated just by a piece of metal hanging from a ribbon, or is he also likely intrinsically motivated to achieve what he has in his sport? © PCN Photography / Alamy

(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* (Vansteenkiste, Lens, & Deci, 2006).

A second explanation is that intrinsic and extrinsic motivations are not two ends of a continuum. Instead, intrinsic and extrinsic tendencies are two independent possibilities, and, at any given time, we can be motivated by some aspects 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 fractions 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 (Anderman & Anderman, 2010; Brophy, 2003). To do this, they need to know about the factors that influence motivation.

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).

Five General Approaches to Motivation

STOP & THINK 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? •

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. The work done in clinical or industrial psychology inspired additional theories as well. Our examination of the field will be selective; otherwise we would never finish.

STOP & THINK ANSWERS Hopeless Geraldo has trouble with getting started (2) and with a sense of despair (5); during the activity he feels defeated and helpless. Safe Sumey makes good choices (1), gets started right away (2), and persists (4). 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 (1), Satisfied Spenser is prompt in getting started (2), engaged (3), persistent (4), and enjoys the task (5). Defensive Daleesha makes poor choices (1), procrastinates (2), avoids engagement (3), and gives up easily (4) because she is so concerned about how others will judge her (5). Anxious Amee's problems have to do with what she thinks and how she feels as she works (5). Her worry and anxiety may lead her to make poor choices (1) and procrastinate (2), which only makes her more anxious at test time. •

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

Incentive An object or event that encourages or discourages behavior.

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*. 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.

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 and Deci and Ryan's self-determination theory, discussed later, are influential humanistic explanations of motivation.

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, 2010). We will look at goals, expectations, and attributions later in this chapter.

SOCIAL COGNITIVE THEORIES. Many influential social cognitive explanations of motivation 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, then 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, 2009; Eccles & Wigfield, 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 (Eccles, 2009; Hickey, 2003; Rogoff, Turkanis, & Bartlett, 2001). When we see ourselves as soccer players, or sculptors, or engineers, or teachers, or psychologists, we are claiming an identity within

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

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.

TABLE 1 • **Five Views of Motivation**

	BEHAVIORAL	HUMANISTIC	COGNITIVE	SOCIAL COGNITIVE	SOCIOCULTURAL
Source of Motivation	Extrinsic	Intrinsic	Intrinsic	Intrinsic and Extrinsic	Intrinsic
Important Influences	Reinforcers, rewards, incentives, and punishers	Need for self-esteem, self-fulfillment, and self-determination	Beliefs, attributions for success and failure, expectations	Goals, expectations, intentions, self-efficacy	Engaged participation in learning communities; maintaining identity through participation in activities of group
Key Theorists	Skinner	Maslow Deci	Weiner Graham	Locke & Latham Bandura	Lave Wenger

a group. In building an identity in the group, we move from legitimate peripheral participation to central 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 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 behavioral, humanistic, cognitive, social cognitive, and sociocultural approaches to motivation are summarized in Table 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, beliefs, and finally, the emotional "hot" side of motivation—interests, curiosity, emotions, and anxiety (Murphy & Alexander, 2000).

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

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*.

NEEDS

Early research in psychology conceived of motivation in terms of trait-like needs or consistent personal characteristics. Three of the main needs studied extensively in this earlier work were the needs for *achievement*, *power*, and *affiliation* (Pintrich, 2003). Abraham Maslow's influential theory emphasized a hierarchy that included all these needs and more.

Maslow's Hierarchy of Needs

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 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 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.

Connect and Extend to PRAXIS II™

Maslow (I, C1)
Consider how problems with satisfying Maslow's hierarchy of needs can affect student learning. Link these ideas to direct or vicarious experiences you might have had in school.

Self-determination theory is a more recent approach to motivation that focuses on human needs (Deci & Ryan, 2002; Reeve, 2009).

Self-Determination: Need for Competence, Autonomy, and Relatedness

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 earlier conceptions of basic needs: *competence* (achievement), *autonomy and control* (power), and *relatedness* (affiliation). Because different cultures have divergent conceptions of self, some psychologists have asked whether the needs for competence, autonomy, and relatedness are universal. In a series of studies, Hyungshim Jang and her colleagues (2009) found that experiences of competence, autonomy, and relatedness were associated with satisfying learning experiences for Korean high school students, so even in a collectivistic culture, these needs may be important.

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, 2009; Reeve, Deci, & Ryan, 2004). People strive to have authority in their lives, 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).

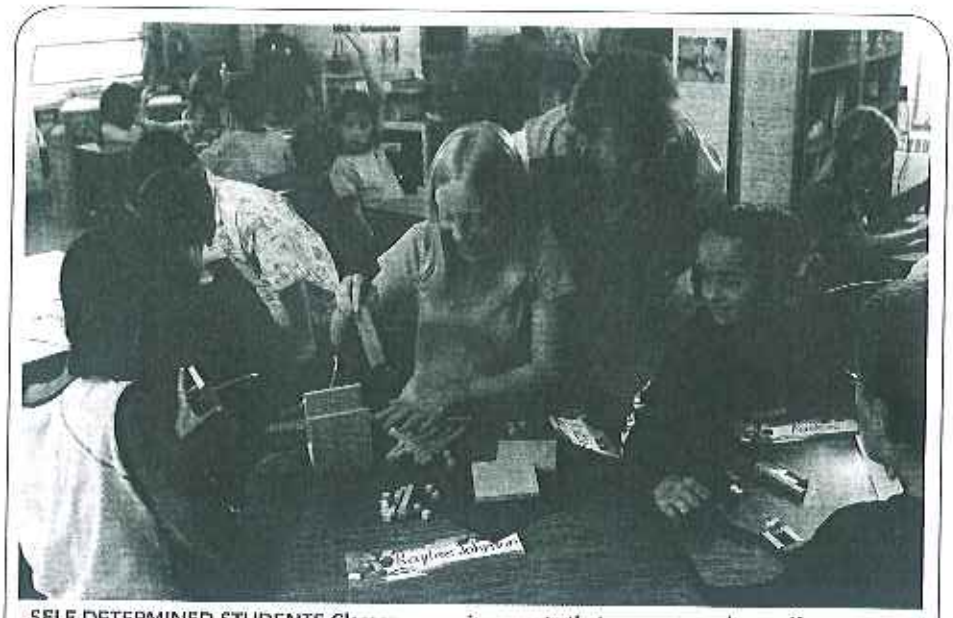
Connect and Extend to PRAXIS II™

Self-Determination (I, C3)
Understand how self-determination 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 and curiosity (even interest in homework assignments), sense of competence, creativity, conceptual learning, grades, school attendance and satisfaction, engagement, use of self-regulated learning strategies, psychological well-being, and preference for challenge. These relationships appear to hold from 1st grade through graduate school (Jang, Reeve, & Deci, 2010; Moller, Deci, & Ryan, 2006; Reeve, 2009; Shih, 2008). When students have the authority to 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. But even though controlling styles of teaching are less effective, teachers are under pressure from administrators, accountability requirements, and cultural expectations to be "in charge," along with parents' expectations

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



SELF-DETERMINED STUDENTS Classroom environments that support student self-determination and autonomy are associated with greater student interest and curiosity, sense of competence, creativity, conceptual learning, and preference for challenge.
© Michelle D. Bridwell / PhotoEdit

for class "discipline." In addition, students often are passive and unengaged or even defiant. Finally, some teachers equate control with useful structure or feel more comfortable with a controlling style (Reeve, 2009). Assuming you are willing to resist those pressures, how can you support student autonomy? One answer is to focus on information, not control, in your interactions with students.

INFORMATION AND CONTROL. Cognitive evaluation theory (Deci & Ryan, 2002) explains how students' experiences such as being praised or criticized, reminded of deadlines, assigned grades, given choices, or lectured about rules can influence their 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). Here is an example of a more *controlling* communication:

> Your paper is due on Monday. Today, we are going to the school library. In the library, you will find information from books and Internet sites to use for your paper. Don't waste your time; don't goof off; make sure to get your work done. In the library, you may work by yourself or with a partner. (Reeve, 2009, p. 169)

This teacher may believe that he is supporting autonomy because he offered a *choice*. Contrast his message with the following statement that gives *information* about why the library visit is valuable:

> Your paper is due on Monday. As a way of helping you write a well-researched paper, we are going to where the information is—the school library. The reason we are going to the library is to find the information you need from books and Internet sites. While there, you may be tempted to goof off, but students in the past have found that a trip to the library was a crucial part of writing an excellent paper. To help you write your best possible paper, you may work in the way you wish—by yourself or with a partner. (Reeve, 2009, p. 169)

As a teacher, what can you do to support student needs for autonomy and competence? An obvious first step is to limit your controlling messages to students because controlling language (*must, ought, have to, should...*) can undermine student motivation (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). Make sure the information you provide highlights students' growing competence. The *Guidelines* give some ideas.

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. Students who feel a sense of relatedness to teachers, parents, and peers are more emotionally engaged in school (Furrer & Skinner, 2003).

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.
4. Allow students to choose work partners as long as they focus on the task.

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 thumb drive, 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.
3. Acknowledge students' perspective: "Yes, this problem is difficult." Or "I can understand why you might feel that way."

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/

All students need caring teachers, but students placed at risk have an even greater need for this kind of teacher. Positive relationships with teachers increase the likelihood that students will succeed in high school and go onto college (Stipek, 2006; Thompson, 2008; Woolfolk Hoy & Weinstein, 2006). In addition, emotional and physical problems—ranging from eating disorders to suicide—are more common among individuals who lack social relationships (Baumeister & Leary, 1995). Relatedness is similar to a sense of belonging (Osterman, 2000).

Needs: Lessons for Teachers

From infancy to old age, people want to be competent, connected, and in control. Students are more likely to participate in activities that help them grow more competent and less likely to engage in activities that hold the possibility of failure. This means that your students need appropriately challenging tasks—not too easy, but not impossible either. They also benefit from 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

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 two. 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 on the treadmill, schedule a dentist appointment, 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 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, elaborated, moderately difficult,* and *likely to be reached* in the near future tend to enhance motivation and persistence (Schunk, Pintrich, & Meece, 2008; Stipek, 2002).

Specific, elaborated goals provide clear standards for judging performance. If performance falls short, we keep going. For example, Ralph Ferretti and his colleagues (2009) gave 4th and 6th grade students either a general goal for writing a persuasive essay ("write a letter to a teacher about whether or not students should be given more out-of-class assignments...") or the general goal elaborated with specific subgoals such as:

- You need to say very clearly what your opinion or viewpoint is;
- You need to think of two or more reasons to back up your opinion;
- You need to explain why those reasons are good reasons for your opinion (p. 580)

Both students with and without learning disabilities wrote more persuasive essays when they were given specific subgoals.

Moderate difficulty provides a challenge, but not an unreasonable one. 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."

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

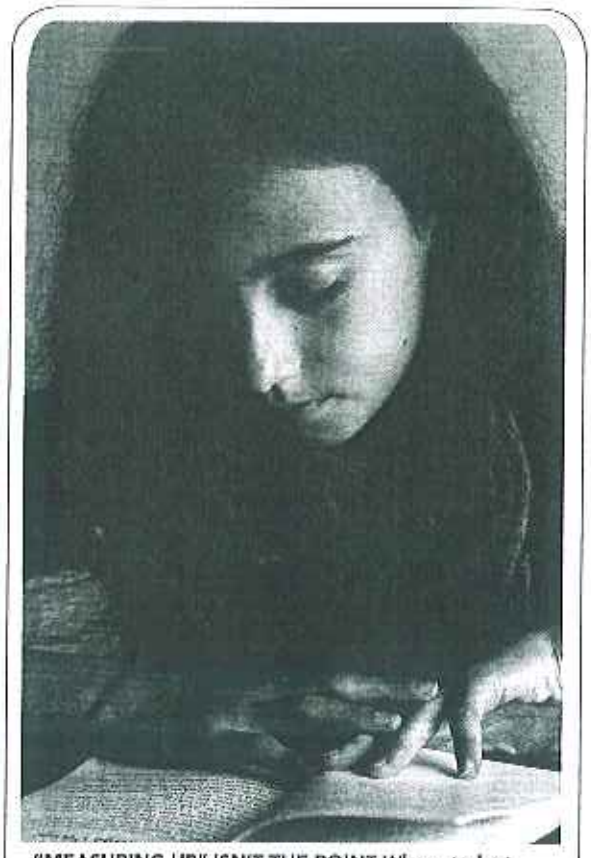
I feel really pleased in school when

___ 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 •

Goal What an individual strives to accomplish.

FOUR ACHIEVEMENT 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 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 (Schunk, Pintrich, & Meece, 2008). In the *Stop & Think* exercise you just completed, 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*). The point of a mastery goal is to improve, to learn, no matter how awkward you appear. When students set mastery goals, the quality of their engagement in the task is higher—they are more invested. Students with mastery goals tend to seek challenges, persist when they encounter difficulties, and feel better about their work (Midgley, 2001). They focus on the task at hand and are not worried about how their performance "measures up" in comparison to others in the class. 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 (Anderman & Patrick, 2012; Kaplan & Maehr, 2007).



"MEASURING UP" ISN'T THE POINT When students set mastery goals, the quality of their engagement in the task is higher—they are more invested. They are less worried about how their performance compares to that of others in the class. David Mager / Pearson Learning Photo Studio

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. Students whose goal is outperforming others may do things to look smart, such as reading easy books in order to "read the most books." The evaluation of their performance by others, not what they learn, is what matters. 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 (Anderman & Anderman, 2010; 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). For college students, pursuing performance goals has been related to higher achievement. And, as is the case with intrinsic and extrinsic motivation, students can, and often do pursue mastery and performance goals at the same time (Anderman & Patrick, 2012).

To account for these recent findings, educational psychologists have added the distinction of approach/avoidance to the mastery/performance distinction. In other words, students may be motivated to either approach mastery or avoid misunderstanding. They may approach performance or avoid looking dumb. Table 2 on the next page 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

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.

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

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

Source: From Pintrich, Paul R. and Dale H. Schunk. Motivation in Education: Theory, Research and Applications, 2e. Published by Allyn and Bacon, Boston, MA. Copyright © 2002 by Pearson Education. Adapted by permission of the publisher.

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; Harackiewiz & Linnenbrink, 2005).

One final caution—performance approach goals can turn into performance avoidance goals if students are not successful in looking smart or winning. The path might lead from performance approach (trying to win), to performance avoidance (saving face and trying not to look dumb), to learned helplessness (I give up!). So teachers are wise to avoid trying to motivate using competition and social comparisons (Brophy, 2005).

BEYOND MASTERY AND PERFORMANCE. Some students don't want to learn, look smart, or avoid looking dumb; they just want to finish fast or avoid work altogether. These students try to complete assignments and activities as quickly as possible without exerting much effort (Schunk, Pintrich, & Meece, 2008). John Nicholls 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" (Nicholls & Miller, 1984).

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. Social goals include a wide variety of needs and motives that have different relationships to learning—some help, but others 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 social 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 or being part of a peer group that values academics certainly can support learning (Pintrich, 2003; A. Ryan, 2001; Urdan & Maehr, 1995).

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.

We talk about goals in separate categories, but students can and do pursue several goals at once (Bong, 2009; Darnon, Dompnier, Gillieron, & Butera, 2010). They have to coordinate their goals so they can make decisions about what to do and how to act. What if 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 they 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 achieving in school—and succeeding in the peer group is important. The need for social relationships is basic and strong for most people.

GOALS IN SOCIAL CONTEXT. Current thinking in educational psychology puts people in context. Goal orientation theory is no exception. The people in the situation socially construct the meaning of an activity, such as an assignment in a biology class; goals set for the activity will reflect the participants' understanding of "what they are doing." So, in a highly competitive classroom climate, students might be more likely to adopt performance goals. In contrast, in a supportive, learner-centered classroom, even a student with a lower sense of self-efficacy might be encouraged to aim for higher mastery goals. Goals are constructed as part of the triadic reciprocal interaction of person, environment, and behavior described by social cognitive theory—"interlocking perceptions of 'meaning,' 'purpose,' and 'self' in guiding and framing action, thought and emotion" (Kaplan & Maehr, 2007).

The way students perceive their class defines the *classroom goal structure*—the goals that students think are emphasized in the class (Murayama & Elliot, 2009). Lisa Fast and her colleagues (2010) found that 4th through 6th grade students had significantly higher levels of self-efficacy and mathematics achievement when they perceived their math classes as caring, challenging, and mastery oriented. So challenge, support, and a focus on learning, not looking good, seem to create a positive classroom environment.

Feedback, Goal Framing, and Goal Acceptance

Besides having specific goals and creating supportive social relationships, there are three 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 framing*. Activities or assignments can be explained or framed as helping students' intrinsic goals, such as growing competence, self-determination, positive relationships with friends or teachers, or well-being. The alternative is portraying activities as helping students reach extrinsic goals such as working for a grade, meeting requirements, getting ready for classes next year, and so on. When activities are linked to students' intrinsic goals of becoming more competent, self-directed, and connected with others, then the students process information more deeply and persist longer to gain a conceptual (not superficial) understanding. Linking activities to the extrinsic goals of meeting someone else's standards promotes rote learning, but not deep understanding or persistence (Vansteenkiste, Lens, & Deci, 2006).

The third factor is *goal acceptance*. Commitment matters: The relationship between higher goals and better performance is strongest when people are committed to the goals (Locke & Latham, 2002). If students reject goals set by others or refuse to set their own goals, then their 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 the goals are validated by connecting activities to students' intrinsic interests (Grolnick, Gurland, Jacob, & Decourcey, 2002).

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 and set them on a path toward alienation from learning in school and learned helplessness (Anderman & Maehr, 1994; Brophy, 2005). 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, which leads us to our next topic—the power of beliefs in motivation.

BELIEFS AND SELF-PERCEPTIONS

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

Beliefs About Knowing: Epistemological Beliefs

What students believe about knowledge and learning (their **epistemological beliefs**) will influence their motivation and the kinds of strategies that they use.

STOP & THINK How would you answer these questions taken from Chan & Sachs (2001)?

1. Which of the following is the most important thing in learning math? (a) remember what the teacher has taught you, (b) practice lots of problems, (c) understand the problems you work on.
2. Which of the following is the important thing to do in learning science? (a) faithfully do the work the teacher tells you, (b) try to see how the explanation makes sense, (c) try to remember everything you are supposed to know.
3. If you wanted to know everything there is about something, say animals, how long would you have to study it? (a) less than a year if you study hard, (b) about one or two years, (c) forever.
4. What happens when you learn more and more about something? (a) the questions get more and more complex, (b) the questions get easier and easier, (c) the questions all get answered. •

Using questions like those above, researchers have identified several dimensions of epistemological beliefs (Chan & Sachs, 2001; Schommer, 1997; Schommer-Aikins, 2002; Schraw & Olafson, 2002). For example:

- **Structure of Knowledge:** Is knowledge in a field a simple set of facts or a complex structure of concepts and relationships?
- **Stability/Certainty of Knowledge:** Is knowledge fixed or does it evolve over time?
- **Ability to Learn:** Is the ability to learn fixed (based on innate ability) or changeable?
- **Speed of Learning:** Can we gain knowledge quickly or does it take time to develop knowledge?
- **Nature of Learning:** Does learning mean memorizing facts passed down from authorities and keeping the facts isolated, or does it mean developing your own integrated understandings?

Students' beliefs about knowing and learning affect the goals they set and the learning strategies they apply. For example, if you believe that knowledge should be gained quickly, you are likely to try one or two quick strategies (read the text once, spend two minutes trying to solve the word problem) and then stop. If you believe that learning means developing integrated understandings, you will process the material more deeply, connect to existing knowledge, create your own examples, or draw diagrams, and generally elaborate on the information to make it your own (Kardash & Howell, 2000; Muis &

Epistemological beliefs Beliefs about the structure, stability, and certainty of knowledge, and how knowledge is best learned.

Franco, 2009). In one study, elementary school students (grades 4 and 6) who believed that learning is understanding processed science texts more deeply than others who believed that learning is reproducing facts (Chan & Sachs, 2001). The *Stop & Think* questions you just answered were used in that study to assess the students' beliefs. The answers associated with a belief in complex, evolving knowledge that takes time to understand and grows from active learning are 1c, 2b, 3c, and 4a.

Beliefs about one dimension discussed above—ability to learn—are particularly powerful. Read on.

Beliefs About Ability

STOP & THINK 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. Adults use two basic concepts of ability (Dweck, 2002, 2006). 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 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 to the *Stop & Think* questions.

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). At around age 11 or 12, children can differentiate among effort, ability, and performance. At 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 & Anderman, 2010).

Students who hold an *entity* (unchangeable) view of intelligence tend to set performance avoid 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 those things 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.

In contrast, holding an *incremental* view of ability is associated with greater motivation and learning. Believing that you can improve your ability helps you focus on the *processes* of problem solving and applying good strategies, instead of on the *products* of test scores and grades (Chen & Pajares, 2010).

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.

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.

Beliefs About Causes and Control: Attribution Theory

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 influence motivation (Anderman & Anderman, 2010).

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.

Bernard Weiner is one of the main educational psychologists responsible for relating attribution theory to school learning (Weiner, 2000, 2010). 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). For example, attributing a great piano performance to your musical talent or hard work are internal attributions. Explaining that the performance is based on coaching from a great teacher is an external attribution.
2. **Stability** (whether the cause of the event is the same across time and in different situations). For example, talent is stable, but effort can change.
3. **Controllability** (whether the person can control the cause). For example, effort and finding a great teacher are controllable, but innate musical talent is not.

Every cause for success or failure can be categorized on these three dimensions. For instance, luck is external (locus), unstable (stability), and uncontrollable (controllability). In attribution theory, ability is usually considered stable and uncontrollable, but incremental theorists (described earlier) 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 or an unfair teacher, they will expect to keep failing in that subject or with that teacher. 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. 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 (Weiner, 2010).

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 (van Laar, 2000).

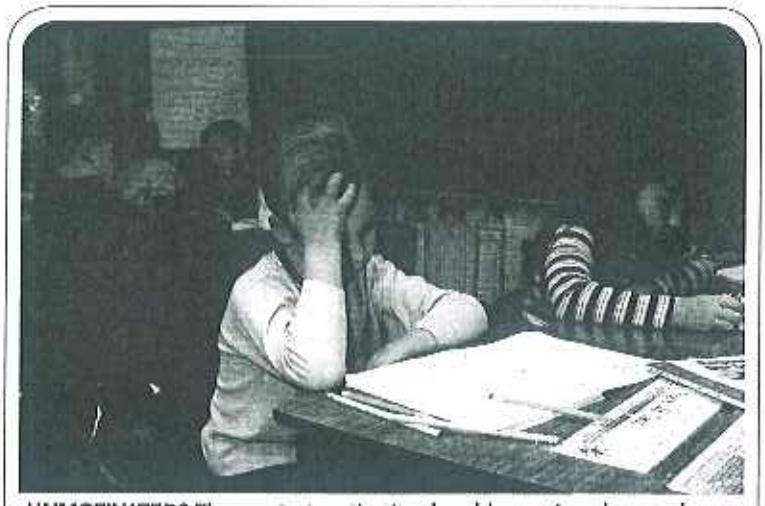
Attribution theories Descriptions of how individuals' explanations, justifications, and excuses influence their motivation and behavior.

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

ATTRIBUTIONS IN THE CLASSROOM. 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"), misunderstanding directions, or just not studying enough. These are internal, controllable attributions. 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. 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").

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, 2010). These students respond to failure by focusing even more on their own inadequacy; their attitudes toward schoolwork may deteriorate even further. Apathy is a logical reaction to failure if students believe the causes are stable, unlikely to change, and beyond their control anyway. In addition, students who view their failures in this light are less likely to seek help; they believe nothing and no one can help, so they conceal their needs for help. This creates a downward spiral of failure and concealment—"the motivationally 'poor' children, by concealing their difficulties, become 'poorer'" (Marchland & Skinner, 2007). 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; Schunk, Pintrich, & Meece, 2008; Stipek, 2002).



UNMOTIVATED? The greatest motivational problems arise when students attribute failures to uncontrollable causes and focus on their own inadequacy. Apathy is a logical reaction if students believe the causes of failure are beyond their control. © Lon C. Diehl / PhotoEdit

TEACHER ACTIONS AND STUDENT ATTRIBUTIONS. We also make attributions about the causes of other people's successes and failures. When a teacher assumes that student failure is attributable to forces beyond the student's control, the teacher tends 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. Does this mean that teachers should be critical and withhold help? Of course not! But it is a reminder that over-solicitous 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-Worth

Whatever the label, most theorists agree that a sense of efficacy, control, or self-determination is critical if people are to feel intrinsically motivated.

LEARNED HELPLESSNESS. 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 classic experiment (Hiroto & Seligman, 1975): Subjects received either solvable or unsolvable puzzles. In the next phase of the experiment, all subjects were given a series of solvable puzzles. The subjects who struggled with unsolvable puzzles in the first phase of the experiment usually solved significantly fewer puzzles in the second phase. They had learned that they could not control the outcome, so why even try?

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, like Hopeless Geraldo described earlier,

TABLE 3 • **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

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.

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 3 (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 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 (fixed) 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-worth) from failure. If they have been generally successful, they may seek to avoid failure like Safe Sumey, 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 example. 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." All these are **self-handicapping** strategies because the students are imposing handicaps on their own achievement. 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.

Self-handicapping Students may engage in behavior that blocks their own success in order to avoid testing their true ability.

GUIDELINES

Encouraging Self-Worth

Emphasize that abilities are not set, but are always improvable.
Examples

1. Share examples of how you have improved your knowledge and skills, for example in writing, at a sport, or doing a craft.
2. Tell about your own failures that became successes when you tried new strategies or got the right help.
3. Save first drafts and finished products from students in previous classes to show how much the students improved with effort and support.

Teach directly about the difference between learning goals and performance goals.
Examples

1. Encourage students to set a small-step goal for one subject.
2. Recognize improvements often with private authentic praise.
3. Use personal best goals, not between-student competition.

Make the classroom a place where failure is just diagnostic—failure tells what needs to be improved.
Examples

1. If a student gives a wrong answer in class, say "I bet others would give that answer too. Let's examine why that is not the best answer. This gives us a chance to dig deeper—excellent!"
2. Encourage revising, improving, polishing, and redoing with an emphasis on improvement.
3. Show students connections between their revised work and a higher grade, but emphasize their growing competence.

Encourage help seeking and help giving.
Examples

1. Teach students how to ask explicit questions about what they do not understand.
2. Recognize students who are helpful.
3. Train class experts for some ongoing needs such as technology guides or progress checkers.

For more information on self-worth, see:
http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/motiv.htm

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 deteriorates. 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 using multiple outcome measures and setting a number of goals. In this way all students have a realistic chance of succeeding on some outcome measures and reaching at least a few goals (Chen, Wu, Kee, Lin, & Shui, 2009). Also, many 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 for their learning. This will help the students develop a sense of self-efficacy for learning and avoid learned helplessness. The *Guidelines* discuss how to encourage self-worth.

Beliefs and Attributions: Lessons for Teachers

If students believe they lack the ability to understand 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-handicapping, self-defeating strategies. And teachers who stress performance, grades, and competition can encourage self-handicapping without realizing they are doing so (Anderman & Anderman, 2010). Just telling students to "try harder" is not particularly effective. Students need real evidence that effort will pay off,

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

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.

What else do we know about motivation? Feelings matter.

Interests, Curiosity, Emotions, and Anxiety

Do you remember starting school? Were you curious about what might be in store, excited about your new world, interested and challenged? Many children are. But a common concern of parents and teachers is that this curiosity and excitement about learning is replaced by a sense of drudgery and disinterest. School becomes a job you have to do—a workplace where the work is not that interesting (Wigfield & Wentzel, 2007). In fact, interest in school decreases over time from elementary to high school, with boys showing greater declines than girls. The transition to middle school is particularly linked to a decline in interest. These declines are troubling because results of research on learning in school show that interest is related to students' attention, goals, grades, and depth of learning (Dotterer, McHale, & Vrouter, 2009; Hidi & Renninger, 2006).

Tapping Interests

STOP & THINK 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?" •

There are two kinds of interests—*personal* (individual) and *situational*—the trait and state distinction again. Personal or individual interests are more long-lasting 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 in learning, deeper processing, better remembering of the material, and higher achievement (Ainley, Hidi, & Berndorf, 2002; Hofer, 2010; Pintrich, 2003). And interests increase when students feel competent, so even if students are not initially attracted to a subject or activity, they may develop interests as they experience success (Stipek, 2002).

Ann Renninger (2009) describes a four-phase model of interest development:

> situational interest triggered → situational interest maintained →
> emerging individual interest → well-developed individual interest

For example, consider Julia, a graduating senior in college described by Hidi and Renninger (2006). As she waits nervously in the dentist's office, flipping through a magazine, her attention is drawn (*situational interest trigger*) to an article about a man who left his engineering job to become a facilitator in legal conflict resolution. When she is called to the dentist's chair, she is still reading the article, so she marks her place and returns to finish reading after her appointment (*situational interest maintained*). She takes notes, and, over the next weeks, searches the Internet, visits the library, and meets with her advisor to get more information about this career option (*emerging individual interest*). Four years later, Julia is enjoying her job as a facilitator as she handles more and more arbitration cases for a law firm (*well-developed, enduring individual interest*).

In the early stages of this four-phase model, emotions play a big role—feelings of excitement, pleasure, fun, and curiosity. Situational interest may be triggered by positive feelings, as when Julia started reading. Curiosity followed and helped Julia stay engaged

INTEREST AND EXCITEMENT Students' interest in and excitement about what they're learning are two of the most important factors in education. © UpperCut Images / Alamy

as she learned more about becoming a facilitator. As Julia added knowledge to her curiosity and positive feelings, her personal interest emerged, and the *cycle of positive feelings, curiosity, and knowledge* continued to build enduring interest.

CATCHING AND HOLDING INTERESTS. Whenever possible, it helps to connect academic content to students' enduring individual 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 interests. You will have to rely more on triggering and maintaining 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 the students' interest over time included math activities that were related to real-life problems and active participation in laboratory activities and projects. Another source of interest is fantasy. Cordova and Lepper (1996) found that students learned more math facts during a computer exercise in which 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. In a study of math learning with older adolescents, Durik and Harachkiewicz (2007) concluded that catching interest by using colorful learning materials with pictures was helpful for students with low initial interest in mathematics, but not for students who were already interested. For the interested students, holding interest by showing how math could be personally useful was more effective.

There are other cautions in responding to students' interests, as you can see in the *Point/Counterpoint*.

Curiosity: Novelty and Complexity

Nearly 50 years ago, psychologists suggested that individuals are naturally motivated to seek novelty, surprise, and complexity (Berlyne, 1966). Exploration probably is innate; infants must explore the world to learn about it (Bowlby, 1969). More recently, Reiss

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 (Schunk, Pintrich, & Meece, 2008). 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 incorporating 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 (1998) 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 their 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).

(2004) listed curiosity as one of the 16 basic human motivations, and Flum and Kaplan (2006) made the case that schools should target developing an exploratory orientation in students as a major goal.

Interest and curiosity are related. Curiosity can be defined as a tendency to be interested in a wide range of areas (Pintrich, 2003). According to Renninger's (2009) four-phase model of interest described in the previous section, our individual interests begin to emerge as we raise and answer "curiosity questions" that help us organize our knowledge about a topic. In order for situational interests to develop into long-term individual interests, curiosity and the desire for exploration are necessary.

George Lowenstein (1994) suggests that curiosity arises when attention is focused on a gap in knowledge. These information gaps cause a sense of deprivation—a need to know that we call "curiosity." This idea is similar to Piaget's concept of disequilibrium and has a number of implications for teaching. First, students need some base of knowledge before they can experience gaps in that knowledge leading to curiosity. Second, students must be aware of the gaps in order for curiosity to result. In other words, they need a metacognitive awareness of what they know and don't know (Hidi, Renninger, & Krapp, 2004). Asking students to make guesses and then providing

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 or sent via email.
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 whether they were right or 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.*

feedback can be helpful. Also, proper handling of mistakes 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.

Emotions and Anxiety

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 (Pintrich, 2003). Research on emotions, learning, and motivation is expanding, in part because we know more about the brain and emotion.

NEUROSCIENCE AND EMOTION. In mammals, including humans, stimulation to a small area of the brain called the *amygdala* seems to trigger emotional reactions such as the "fight or flight" response. The responses in nonhuman animals can be strong. But human emotions are the outcome of physiological responses triggered by the brain, combined with interpretations of the situation and other information. So, hearing startling sounds during an action movie might cause a brief emotional reaction, but hearing the same sounds in the middle of the night as you are walking through a dark alley could lead to stronger and more lasting emotional reactions. Even though the amygdala plays a

key role in emotions, many other brain regions are also involved. Emotions are a "constant interplay between cognitive assessments, conscious feelings, and bodily responses, with each able to influence the other" (Gluck, Mercado, & Myers, 2007, p. 418). Humans are more likely to pay attention to, learn about, and remember events, images, and readings that provoke emotional responses (Murphy & Alexander, 2000; Cowley & Underwood, 1998; Reisberg & Heuer, 1992). Emotions can affect learning by changing brain dopamine levels that influence long-term memory and by directing attention toward one aspect of the situation (Pekrun, Elliott, & Maier, 2006). Sometimes, emotions interfere with learning by taking up attention or working memory space that could be used for learning (Pekrun, Goetz, Titz, & Perry, 2002).

In teaching, we are concerned about a particular kind of emotions—those related to achievement in school. Experiences of success or failure can provoke achievement emotions such as pride, hope, boredom, anger, or shame (Pekrun, Elliot, & Maier, 2006). How can we use these findings to support learning in school?

ACHIEVEMENT EMOTIONS. In the past, with the exception of anxiety, emotions generally were overlooked in research on learning and motivation (Linnenbrink-Garcia & Pekrun, 2011). But as you saw above, research in the neurosciences has shown that emotions are both causes and consequences of learning processes. Reinhard Pekrun and his colleagues (2006, 2010) have tested a model that relates different goal orientations to boredom and other emotions in older adolescents from the United States and Germany. The goal orientations are those we discussed earlier: mastery, performance approach, and performance avoidance.

With a *mastery goal*, students focused on an activity. They valued the activity as a way to get smarter, and they felt in control. They were not afraid of failing, so they could focus on the task at hand. The researchers found that having mastery goals predicted enjoyment in learning, hope, and pride. Students with mastery goals were less likely to feel angry or bored about learning. Boredom is a big problem in classrooms because it is associated with difficulties in paying attention, lack of intrinsic motivation, weak effort, shallow processing of information, and poor self-regulated learning (Pekrun et al., 2010)

With a *performance-approach goal*, students wanted to look good or be the best, and they focused their attention on positive outcomes. Performance-approach goals were related mostly to pride. Students with *performance-avoidance goals* focused on the fear of failing and the possibility of looking stupid. Performance-avoidance goals predicted feelings of anxiety, hopelessness, and shame. These findings are summarized in Table 4.

TABLE 4 • **How Different Achievement Goals Influence Achievement Emotions**

Different goals are associated with different emotions that can impact motivation.

GOAL ORIENTATION	STUDENT EMOTIONS
Mastery Focus on activity, controllability, positive value of activity	Increases: enjoyment of activity, pride, hope Decreases: boredom, anger
Performance-approach Focus on outcome, controllability, positive outcome value	Increases: pride
Performance-avoidance Focus on outcome, lack of controllability, negative outcome value	Increases: anxiety, hopelessness, shame

Source: *Adapted from Pekrun, R., Elliot, A. J., & Maier, M. A. (2006). Achievement goals and discrete achievement emotions: A theoretical model and prospective test. Journal of Educational Psychology, 98, 583–597.*

How can you increase positive achievement emotions and decrease boredom in the subject you teach? Students are more likely to feel bored if they believe they have little control over the learning activities and they don't value the activities. Matching challenge to the students' skill levels and giving choices can increase the students' sense of control. In addition, efforts to build student interest and show the value of the activities also help to fight boredom. And remember, achievement emotions are domain specific. The fact that students enjoy and feel proud of their work in math does not mean they will enjoy English or history (Goetz, Frenzel, Hall, & Pekrun, 2008; Pekrun et al., 2010). In addition, teachers who enjoy their subjects tend to be more enthusiastic and encourage student enjoyment, so make sure, as much as possible, that you are teaching from your own interests and passions (Brophy, 2008; Frenzel, Goetz, Lüdtke, Pekrun, & Sutton, 2009).

AROUSAL AND ANXIETY. 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 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 eyelids 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. 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 SAT or GRE.

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!)

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. 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 (Jain & Dowson, 2009; Schunk, Pintrich, & Meece, 2008). Whenever there are pressures to perform, severe consequences for failure, and competitive comparisons among students, anxiety may be encouraged (Wigfield & Eccles, 1989). 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, is 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).

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

Anxiety General uneasiness, a feeling of tension.

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 (Jain & Dowson, 2009; 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 material, but "freeze and forget" on tests (Naveh-Benjamin, McKeachie, & Lin, 1987).

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-focused self-regulating learning strategies, emotional management, and avoidance. *Problem-focused self-regulating 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, self-regulated learning 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. In addition, directly teaching students self-regulated learning strategies and supporting their self-efficacy can help them be more in control of their learning and their anxiety (Jain & Dowson, 2009).

Curiosity, 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.

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.

Motivation to Learn in School: On Target

Teachers are concerned about developing a particular kind of motivation in their students—the motivation to learn, defined as "a student tendency to find academic activities meaningful and worthwhile and to try to derive the intended academic benefits from them" (Brophy, 1988, 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 11 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).

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

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.counselingcenter.uiuc.edu/?page_id=193

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 *catch* their interest and create a *state* of motivation to learn. The second and longer-term goal is to develop in our students enduring individual interests and the *trait* of being motivated to learn so they will be able to educate themselves for the rest of their lives. 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).

Earlier in this chapter we examined the roles of intrinsic and extrinsic motivation, attributions, goals, beliefs, self-perceptions, interests, curiosity, and emotions in motivation. Table 5 on the next page shows how each of these factors contributes to motivation to learn.

The central question for the remainder of the chapter is: How can teachers use their knowledge about attributions, goals, beliefs, self-perceptions, interests, and emotions to

TABLE 5 • **Building a Concept of Motivation to Learn**

Motivation to learn is encouraged when the following five 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 TASK-INVOLVED: Concerned with mastering the task	PERFORMANCE GOAL: Desire for approval for performance in others' eyes; tendency to choose very easy or very difficult goals EGO-INVOLVED: Concerned with self in others' eyes
Achievement Motivation	Motivation to ACHIEVE: Mastery orientation	Motivation to AVOID FAILURE: Prone to anxiety
Likely Attributions	Successes and failures attributed to CONTROLLABLE effort and ability	Successes and failures attributed to UNCONTROLLABLE causes
Beliefs about Ability	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

Connect and Extend to PRAXIS II™

Target (I, C1,2,3)
Describe the major features of the TARGET model and identify related strategies that are likely to boost motivation.

increase motivation to learn? To organize our discussion, we will use the TARGET model (Ames, 1992; Epstein, 1989), identifying six areas where teachers make decisions that can influence student motivation to learn.

T: task that students are asked to do
A: autonomy or authority students are allowed in working
R: recognition for accomplishments
G: grouping practices
E: evaluation procedures
T: time in the classroom

Tasks for Learning

To understand how an academic task can affect students' motivation, we need to analyze the task. 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. Perceptions of task value predict the choices students make, such as whether to enroll in advanced science classes or join the track team. Efficacy expectations predict achievement in actually doing the task—how well the students will perform in the science class or on the track team (Wigfield & Eccles, 2002b).

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.

We can think of task value as having four components: importance, interest, utility, and cost (Eccles & Wigfield, 2002; Hulleman, Godes, Hendricks, & Harackiewicz, 2010). **Importance or attainment value** is the significance of doing well on the task; this is closely tied to the needs of the individual (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 proves 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 can 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. Because task value has to do with choices, positive values toward academic tasks can be life-changing because choices about courses in high school and education after high school affect career and life opportunities (Durik, Vida, & Eccles, 2006).

BEYOND TASK VALUE TO GENUINE APPRECIATION. Jere Brophy (2008, p. 140) reminds teachers that there is more to value than interest or utility—there is the power of knowing: "Powerful ideas expand and enrich the quality of students' subjective lives." These ideas give us lenses for viewing the world, tools for making decisions, and frames for appreciating the beauty in words and images. An entire issue of *Theory Into Practice*, the journal I edit, is devoted to Jere's ideas about engaging students in the value and appreciation of learning (Turner, Patrick, & Meyer, 2011). One way to build appreciation is with authentic tasks.

AUTHENTIC TASKS. Recently, there has been a great deal written about the use of authentic tasks in teaching. An **authentic task** 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 (Pugh & Phillips, 2011). **Problem-based learning** and service learning are two examples of the use of authentic tasks in teaching. For example, a physics teacher might use skateboarding as a basis for problems and examples, knowing that skateboarding is an authentic task for many of her students (Anderman & Anderman, 2010). For younger students, compare these two teachers described by Anderman and Anderman (2010):

> Mrs. Byrnes gives her class an initial lesson on halves and quarters, divides students into groups of three, and gives each group two Twinkies and a plastic knife. She asks the students to cut one Twinkie into two equally-sized pieces, and the other Twinkie into four equally-sized pieces. Next comes the challenge–use the Twinkie pieces to determine which fraction is bigger, one-half (1/2) or three-fourths (3/4). Mrs. Byrnes then visits each group; the members must explain their work to her. When they are correct, they get to eat the Twinkies.
>
> Mr. Fletcher gives the same initial lesson on halves and quarters. He then provides each student with a worksheet with a few simple questions that are designed to help the students to learn about fractions. For these questions, the students are supposed to imagine that they have several pieces of paper, and that they cut the paper with scissors into various quantities (e.g., they cut one paper into four equal-size pieces, they cut another paper into two equal-size pieces). The students are then asked to demonstrate whether one-half (1/2) or three-fourths (3/4) is the bigger fraction. They then have to write down their answer, along with a brief explanation.

The students in Mrs. Byrnes's class were involved in a more authentic (and tasty) task involving cutting and dividing food, cooperating with others, and enjoying the fruits (or Twinkies) of their labor. They also had to figure out how to share two halves and four quarters equally among three people—advanced cooperation.

Interest or intrinsic 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.

Supporting Autonomy and Recognizing Accomplishment

The second area in the TARGET model involves how much choice and autonomy students are allowed. Choice and control in schools are 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 and student engagement (Jang, Reeve, & Deci, 2010; Reeve, Nix, & Hamm, 2003). What can teachers do to support choice without creating chaos?

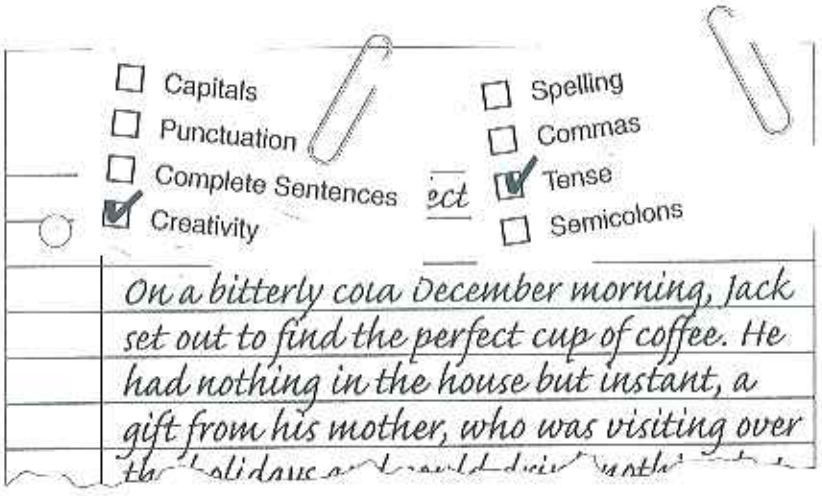
SUPPORTING CHOICES. Choices should provide a range of selections that allow students to follow their interests and pick an option that is important and relevant to them (Katz & Assor, 2007). But beware of giving too many choices. Like totally unguided discovery or aimless discussions, unstructured or unguided choices can be counterproductive for learning (Garner, 1998). I know that graduate students in my classes 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). Students can have input about work partners, seating arrangements, how to display work, or suggestions for class rules. But the most important kind of autonomy support teachers can provide probably is cognitive autonomy support—giving students opportunities to discuss different cognitive strategies for learning, approaches to solving problems, or positions on an issue (Stefanou, Perencevich, DiCinto, & Turner, 2004). Students also can exercise autonomy about how they receive feedback from the teacher or from classmates. Figure 1 describes a strategy called "Check It Out," in which students specify the skills that they want to have evaluated in a particular assignment. Over the

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

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. Giving students rewards for activities that they already enjoy can undermine intrinsic motivation. 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 that were followed up by one of the following teacher responses: 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 (2009a) have labeled this interpersonal factor the goal structure of the task. There are three goal structures: cooperative, competitive, and individualistic, as shown in Table 6.

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

TABLE 6 • 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: Based on 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.

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

approaches to peer learning or group learning. For example, to encourage motivation with a cooperative goal structure, form reading groups based on student interests instead of abilities and change the groups every month (Anderman & Anderman, 2010).

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 (Brophy, 2005). 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 to 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.

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.

PUTTING IT ALL TOGETHER. 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 7 summarizes the dramatic differences in these classrooms between the use of 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 areas, 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, 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—but they added more challenging tasks along with the support the students needed 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 7.

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, emotions, and beliefs. Teachers encourage motivation to learn by taking this diversity into account using TARGET—designing tasks, supporting autonomy, recognizing accomplishments, grouping, making evaluations, and managing time. Take interest, for example. Embedding

TABLE 7 • **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. 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 DO NOT SUPPORT MOTIVATION TO LEARN	
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 the class and the class members hold up cards with scores rating how well each student performed.
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.

>

A FEW STRATEGIES THAT DO NOT SUPPORT MOTIVATION TO LEARN *(continued)*	
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. F. Dolezal, L. M. Welsh, M. Pressley, & M. Vincent. Elementary School Journal, 2003, 103, pp. 247–248.

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 middle-school classes moved from writing using worksheets and standard assignments to writing about such topics as immigration, bilingualism, and gang life—issues 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 viewed 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.

Lessons for Teachers: Strategies to Encourage Motivation

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. Second, the teacher must be a patient, supportive person who never embarrasses the students because they made mistakes. Everyone in the class should view 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 as we have seen, what makes a task authentic is influenced by the students' culture (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.* 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.* Break long-term projects into subgoals. 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.* 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. 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. It must be possible for students to meet their needs for safety, belonging, and achievement in our classes. Many students are quietly wounded by their teachers' words or school practices that embarrass, label, or demean (Olson, 2008). We must make it clear that both women and men can be high achievers in all subjects: no subjects are the territory of only one sex. It is not "unfeminine" to be strong in mathematics, car mechanics, or sports. It is not "unmasculine" to be good in literature, art, 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 movie personalities, or other significant features of their lives (Schiefele, 1991).
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. Because the students had just learned this fact, they responded yes. 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.

3. *Make the learning task fun.* Many lessons can be taught through simulations or games (see the *Point/Counterpoint*). 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. 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.

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 or ask them to explain how the material will be important in their lives (Hulleman, Godes, Hendricks, & Harackiewicz, 2010).
2. In some situations, teachers can *provide incentives and rewards* for learning. 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, such as buying your first car, making decisions about mobile phone plans, or writing a persuasive letter to a potential employer.

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 and correct problems quickly. You don't want students to practice errors too long.
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. 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 focus on performance, not learning. Anxious students are especially hard hit by highly competitive evaluation.
4. *Reduce the task risk without oversimplifying it.* 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 tasks.
6. *Teach the particular learning strategies* 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. The support of families can be helpful as you design strategies for your students. The *Family and Community Partnerships Guidelines* give ideas for working with families.

GUIDELINES — FAMILY AND COMMUNITY PARTNERSHIPS

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 their goals are 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, 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' or caregivers' 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 or caregivers 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.

▼ SUMMARY

threshorn / Shutterstock.com

What Is Motivation?

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 social 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. Social cognitive theories take into account both the behaviorists' concern with the consequences of behavior and the cognitivists' interest in the impact of individual beliefs and expectations. Many influential social cognitive explanations of motivation can be characterized as expectancy × value theories. Sociocultural views emphasize legitimate engaged participation and identity within a community.

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.

Needs

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 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.

Goal Orientations

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, meaningful, and validated by activities connecting them to their intrinsic interests.

Beliefs and Self-Perceptions

What are epistemological beliefs and how do they affect motivation? Epistemological beliefs are ways of understanding how you think and learn. Individuals' epistemological beliefs can impact their approach to learning, their expectations of themselves and the work they do, and the extent to which they engage in academic tasks. Specifically, epistemological beliefs include your understanding of the structure, stability, and certainty of knowledge. A belief that knowledge can be organized into a grand scheme in which all things are related, for example, may lead students to try to connect all new knowledge with previous knowledge in a meaningful way. If the task proves excessively challenging, these students may believe the new information is not relevant to them or worth understanding.

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 learned helplessness and what deficits does it cause? 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.

Interests, Curiosity, Emotions, and Anxiety

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.

How does curiosity affect learning, and what can teachers do to stimulate curiosity in their subject area? Curiosity is the tendency toward interest in a variety of things. Students' curiosity is guided by their interests, and thus provides them with a self-driven motivation to explore new ideas and concepts. As a result, curiosity can be a powerful motivational tool that captures and maintains students' attention in school. Teachers can foster curiosity by tapping into students' interests, illustrating connections between course material and applications that may be interesting to students, and allowing students to find these connections for themselves. An example might include asking students to identify which simple machines are at work in a skateboard or rollercoaster.

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.

Motivation to Learn in School: On TARGET

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 in which 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, they 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 the evaluative climate affect goal setting? The more competitive the grading, the more students set performance goals and focus on "looking competent," that is, they are more 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.

▼ KEY TERMS

Academic tasks
Anxiety
Arousal
Attribution theories
Authentic task
Being needs
Cognitive evaluation theory
Deficiency needs
Entity view of ability
Epistemological beliefs
Expectancy × value theories
Extrinsic motivation
Failure-accepting students
Failure-avoiding students
Goal
Goal orientations
Goal structure
Hierarchy of needs
Humanistic interpretation
Importance/Attainment value
Incentive
Incremental view of ability
Interest or intrinsic value
Intrinsic motivation
Learned helplessness
Legitimate peripheral participation
Locus of causality
Mastery goal
Mastery-oriented students
Motivation

Motivation to learn
Need for autonomy
Performance goal
Problem-based learning
Reward
Self-actualization
Self-efficacy
Self-handicapping
Social goals
Sociocultural views of motivation
Utility value
Work-avoidant learners

CONNECT AND EXTEND TO LICENSURE

MULTIPLE-CHOICE QUESTIONS

1. Miss Johnson would like for her students to be motivated to do their work without bribing them with treats or promises of extra recess time. Which one of the following is the type of motivation she should encourage in her students?
   A. Extrinsic
   B. Intrinsic
   C. Locus of control
   D. Relatedness
2. Why should educators concern themselves with Abraham Maslow's Hierarchy of Needs?
   A. The stages in students' development might determine their ability to be successful in certain subjects.
   B. Social and emotional growth can impact students in their ability to cooperate with their peers.
   C. Deficiencies in students' lives can impact their ability to succeed academically.
   D. Parenting styles determine whether students succeed academically or not.
3. Teachers who select all content for their students and insist upon students accomplishing their assignments on their own neglect which of the following aspects of self-determination?
   A. Autonomy and competence
   B. Autonomy and relatedness
   C. Relatedness and competence
   D. Autonomy, relatedness and competence
4. Which of the following is true regarding extrinsic motivation?
   A. Extrinsic motivation should be avoided at all costs because it undermines a student's intrinsic desire.
   B. Extrinsic motivation is not associated with grades and incentives.
   C. Extrinsic motivation may be necessary to initially encourage students to engage in certain activities.
   D. Extrinsic motivation is more desirable than intrinsic motivation in the classroom as educators have increased control.

CONSTRUCTED-RESPONSE QUESTIONS

Case

Stephanie Wilson had been educated in "old school methods." Her teachers insisted on straight rows of seated students who did not talk during lectures or complain about assignments. While Stephanie had been successful in this model, not all of her past classmates flourished in such a rigid environment. As a new teacher she wanted a more student friendly environment. She envisioned a classroom where students were stimulated by the activities and worked collaboratively. "I want my students to look forward to coming to school. I want them to be agents in the learning process, not just passive recipients of my curriculum." She imagined designing learning situations in which her students could all achieve. Step by step they could all learn! As her students progress, she would see when they got off the track and manage to remediate before they started to do poorly. In this way, Stephanie thought, none of her students would be failures.

5. Explain why Stephanie's plan to provide early remediation when students are struggling is a good idea.
6. How can Stephanie Wilson support self-determination and autonomy in her classroom?

MyEducationLab™

Go to Chapter 12 of the Book Specific Resources in MyEducationLab and click on "Connect and Extend to Licensure" to answer these questions. Compare your responses with the feedback provided.

WHAT WOULD THEY DO?

TEACHERS' CASEBOOK: Motivating Students When Resources Are Thin

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

AIMEE FREDETTE • 2nd Grade
Fisher Elementary School, Walpole, MA

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 • 2nd Grade

Claymont Elementary School, Ballwin, MO

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, MN

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, TX

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 textbooks 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 • 2nd Grade

Riverside Elementary School, Dublin, OH

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. Licensure

MyEducationLab™

Go to Topic 10, Motivation and Affect, in the MyEducationLab (www.myeducationlab.com) for *Educational Psychology*, where you can:

- Find learning outcomes for motivation and affect along with the national standards that connect to those outcomes.
- Complete Assignments and Activities that can help you more deeply understand the chapter content.
- Apply and practice your understanding of the core teaching skills identified in the chapter with the Building Teaching Skills and Dispositions learning units.
- Examine challenging situations and cases presented in the IRIS Center Resources.
- Access video clips of CCSSO National Teachers of the Year award winners responding to the question, "Why Do I Teach?" in the Teacher Talk section.
- Check your comprehension on the content covered in the chapter with the Study Plan. Here you will be able to take a chapter quiz, receive feedback on your answers, and then access Review, Practice, and Enrichment activities to enhance your understanding of chapter content.
- Find additional Teachers' Casebook scenarios and responses to them from practicing teachers.
- Use the Online Lesson Plan Builder to practice lesson planning and integrating national and state standards into your planning.

LICENSURE APPENDIX

Describe the theoretical foundations of the major approaches to motivation.

- Identify and define important terms related to motivation including goals, attributions, intrinsic and extrinsic motivation, self-determination.
- Use your knowledge of motivation to:
  - identify situations and conditions that can enhance or diminish student motivation to learn.
  - design strategies to support individual and group work in the classroom.
  - implement practices that help students become self-motivated.