and take on more responsibility for their learning. You will note that several of the roles listed are the same as those given for the traditional roles in figure 1.2. These learning roles continue to be of value in a learner-centered classroom when used to optimize students' learning.

If our students are to be successful in these new learning roles, they will need help and guidance from us. They will also need clear explanations why taking on these roles, which require more work and more time on their part, are in their best interest. These issues are explored in chapter 2.

Every aspect of our teaching offers us opportunities to enhance the quality, depth, and permanence of our students' learning. It requires only that we think about how each teaching choice will affect our students and whether our students will need any new skills or strategies to take full advantage of the learning opportunities we seek to provide.

2

WHY STUDENTS RESIST LEARNER-CENTERED TEACHING

The adoption of a learner-centered teaching approach seems, on the surface, to be something our students would embrace. It gives them more control over their learning; it offers them choices about what and how to learn, a variety of activities and assignments, and more firsthand exploratory learning opportunities; and it is more interactive. However, hundreds of faculty, both at Ferris State (where I teach) and across the country, who took part in my learner-centered workshops, found a very different reaction when introducing learner-centered methods. They reported that many students were angry and upset, and complained about the changes being implemented. This discontent occurred even though faculty started their implementation process slowly and introduced only a few changes. The reason for the hostility is the powerfully entrenched teacher-centered view of learning these students possess. The learner-centered approach looks nothing like most of their previous school experiences.

Our Biggest Challenge

The single biggest challenge we face in successfully adopting a learner-centered approach to teaching is getting our students to buy into the change, to switch their learning paradigm. The reality is that, without this acceptance, chaos and constant complaining are likely to reign in the classroom. Meeting this challenge, despite the problems some faculty have reported, is not that difficult; it just requires an effective three-step plan. Step one is to understand why our students are resistant to the roles and responsibilities of a

learner-centered environment. Step two is to share with our students a clear set of reasons, backed up by research, why they need to take on new learning roles and responsibilities, even though they are content with their old ones. Step three is to teach our students the new learning skills they will need to be successful in a learner-centered classroom. This chapter is devoted to accomplishing step one. Chapters 3 and 4 provide information for accomplishing step two, and chapters 5 through 12 provide instructions for implementing step three.

Reasons for Students' Resistance

> It takes a lot of courage to release the familiar and seemingly secure, to embrace the new. But there is no real security in what is no longer meaningful. There is more security in the adventurous and exciting, for in movement there is life, and in change there is power.
>
> —Alan Cohen

As Cohen so eloquently put it, when we ask our students to adopt new roles as learners and take on new responsibilities, we are asking them to have the courage to give up some of the security and familiarity of their past learning behaviors. We are asking our students to trust us when we tell them that, even though their old learning behaviors are comfortable and may have led to much success in high school, changing these behaviors is clearly the right thing to do. To help our students accept this change, we must first understand why most will resist. I have had numerous discussions over the past four years with faculty who are working to implement a learner-centered approach, and we have jointly identified eight reasons why students resist adopting learner-centered behaviors. You may be able to add to this list, and you may see some overlap in the reasons, but the list represents the distilled experiences of many faculty:

1. Old habits die hard.
2. High schools remain teacher-centered institutions.
3. Learning is not a top reason students give for attending college.
4. Students do not like taking learning risks.
5. Learner-centered teaching does not resemble what students think of as school.

6. Students do not want to put forth the extra effort learner-centered teaching requires.
7. Students' mind-sets about learning make adapting to learner-centered teaching more difficult.
8. Many students follow the path of least resistance in their learning.

Now let's explore each of these reasons in depth.

Old Habits Die Hard

A study led by Ann Graybiel (2005) of MIT's McGovern Institute found that,

> although habits help us through the day, eliminating the need to strategize about each tiny step involved in driving to work and other complex routines, habits (especially bad habits), can have a vise grip on both mind and behavior. Important neural activity patterns in a specific region of the brain change when habits are formed, change again when habits are broken, but quickly re-emerge when something rekindles an extinguished habit—routines that originally took great effort to learn. (p. 1158)

The expectations many students have about their roles and responsibilities as college learners are based on strongly formed habits learned through 12 or more years of teacher-centered instruction. These habits include such things as sitting quietly, doing the assigned homework , taking lecture notes, and answering multiple-choice questions. After many years, school has a very familiar pattern to it.

For students to change their learning habits and have those changes remain in place, as is necessary in a learner-centered classroom, they will need significant help in understanding why the changes are necessary (see chapters 3 and 4) as well as how to make the changes (see chapters 5–12). They will also need regular reinforcement and encouragement from us.

In our students' previous learning environment, the importance of memorization was stressed, rather than the value of learning with understanding. Facts and details often were a primary focus, not the larger themes of causes and consequences. The shortfalls of these approaches are not apparent if the only test of learning involves testing memory. When the transfer of learning is measured, as is done in a learner-centered classroom, the shortfalls become very apparent (Bransford, Brown, & Cocking, 1999, p. 8). It will take our students time and a great deal of practice to develop a new set of

learning habits. We should anticipate that occasionally they will fall back into their old ways, for old habits die hard.

High Schools Remain Teacher-Centered Institutions

I have a great deal of respect for my colleagues who teach in our public and private secondary schools. The teaching they do is fraught with difficult challenges, and their work is vital to the welfare of all Americans. However, the research on American high schools indicates that they are teacher-centered, not learner-centered. At the 2003 Lilly West Conference, keynote speaker Dr. Fredrick Baker (Cal-Poly Pomona) (2003), a nationally known researcher on the state of education both in the United States and abroad, told the audience that much positive, learner-centered change had occurred in the elementary schools in the United States, resulting in measurable learning gains. He went on to say that some moderate change was being seen at the middle school level as well. Unfortunately, the news about our high schools was not as good. He reported that they had not changed, and that their instructional methods are much like they were decades ago. The National Commission on the Senior Year came to a similar conclusion in 2001:

> Despite the efforts of many, the organization and structure of most comprehensive high schools look very similar to those of high schools of generations ago. High schools have stood still amidst a maelstrom of educational and economic change swirling around them. (U.S. Department of Education, 2001)

Because our high schools have not changed, it is fair to assume that our students will expect to use their high school learning habits when they enter college. Our students are most likely to maintain a simple philosophy: if it isn't broken, don't fix it. Many of our students were highly successful in their teacher-centered high school courses and have no reason to think the same habits that got them As in high school, and high scores on the ACT or the SAT, will not work in college. We should not be surprised by this, for it is a logical conclusion for them to reach. Nor should we expect high schools to embrace the learner-centered paradigm anytime soon. If our students are to change, we will have to be the facilitators of that change.

Learning Is Not a Top Reason Students Give for Attending College

In his 10-year study of high school students, Steinberg (1997) reported that the most common reason students gave for trying in school was not interest

in the subject, but getting good grades so they could get into college. Perhaps even more disconcerting is the finding of a study by Levine and Cureton (1998) that 37% of students would drop out of college if they thought college was not helping their chances of getting a job (p. 116). By age 18, many students are sick to death of school and just see college as the last hurdle to be crossed (Leamnson, 1999, p. 35).

These findings are not all that surprising. During the 20 years I taught teacher-centered critical reading courses (1977–1998), I regularly made notes from students' evaluations in hopes of recognizing patterns in my teaching that I could change to improve it. On these evaluations, I asked students what they liked and what they did not like about the course. Figure 2.1 presents edited versions of the most common responses. My students' views of learning are quite consistent with what one might expect from students educated in a teacher-centered system. They also shed light on why students may struggle to adapt to the new roles and responsibilities that are asked of them in a learner-centered classroom. In addition, the responses often reflect Steinberg's findings that school is about surface things such as grades, tests, workload, and how students feel about the teacher. The students did not write about what they learned, or how they were challenged to change their thinking, or how better prepared they were for future college courses—all

FIGURE 2.1
Common student responses to a Critical Reading course evaluation.

There was too much homework.
I didn't like that we had to take so many notes in class.
We had too much reading to do in this class. The teacher should give us less.
I didn't like that we had essay tests. The teacher should give us multiple-choice tests.
The teacher was really nice—I liked him.
The teacher made the assignments very clear.
The teacher spent a lot of time trying to get someone to answer the questions he asked.
I think the teacher should give us points for discussion.
A lot of the work seemed like busywork.
I liked that we could get extra credit.
The course was too easy—I didn't learn very much. The teacher needs to challenge us more.
I liked the stories the teacher told, but not all the writing we had to do.
I wish my other teachers were more interested in us like this teacher is.

goals I had for the course. The consistency of the responses over such a long period led me to conclude that students see school in terms of work to get out of the way, not learning to be embraced.

Students Do Not Like Taking Learning Risks

Thomas Edison failed more than 3,000 times to find the material that would eventually become the filament for the lightbulb. When asked about it, he responded that he hadn't failed, that he had eliminated from the search thousands of things that did not work. Unfortunately, this positive view of taking risks and learning from failure is not the dominant mind-set of most college students. Teachers know that learning anything entails taking some risks and confronting the possibility of failure. But as we grow older, we develop a tendency to hide from failure (Tagg, 2003, p. 54). Students who see failure as an enemy to be avoided can feel a sense of helplessness in potential learning situations, leading to the very failure they hope to avoid. When this failure occurs repeatedly, it will inhibit their learning (Dweck, 2000). Students who do not take risks or make mistakes—the very actions in which successful thinkers must engage—are in the business of protecting their unblemished record of mediocrity (Covington, 1992, p. 231). Despite growing up as risk takers, many students fail to maintain a willingness to take risks in a school environment.

A great example of students avoiding learning risks developed in the honors program at Ferris State in 1998. I received a call from the program coordinator concerning a problem that several of the honors faculty were having with the lack of student participation in classroom discussions. The honors faculty believed that, as the best and brightest at Ferris State, these students should have been exchanging ideas, challenging each other, and sharing their insights, but this was not occurring. The coordinator's question was, How could the honors faculty get the students to participate more fully in class discussions?

I suggested that perhaps the students were avoiding discussion because their previous learning experiences taught them that if they could get an A without taking the risk of speaking up in class, then they would be crazy to say anything. By speaking up in class, honors students, in particular, run the risk that if they make a mistake, that error will reveal that they might not be as smart as they want their peers to think they are. An even

worse scenario would be for their teachers to discover that they are not a smart as they want them to think they are. Many students hope to avoi public failure or embarrassment by remaining silent. They view speakin out, which creates the possibility of giving a wrong answer or an answe with which others may disagree, as just not worth it unless a grade is a stake. Students have learned from 12 or more years of school that the im portant thing is the grade. Therefore, the path of least risk to obtainin that grade is the one to take.

The honors students were simply practicing what they had learne throughout their schooling: don't do any more than is necessary to get th A. In his book, *Punished by Rewards*, Kohn (1993) describes classrooms a economies in which students do not do any learning without some corresponding "pay." Accordingly, learning is not seen as having value in and o itself; it is only a means to an end, which is the grade. If a grade is not a stake, as is often the case in discussions, why bother? Getting our student to abandon this highly ingrained mentality is not easy.

The answer I gave the honors coordinator was to tell the faculty to make class participation a meaningful part of the students' final grade. This action would demonstrate to the students that the teachers valued discussion. By changing the rules so the students could not get an A without participating, the faculty were using the students' "grade obsession" as a means of getting them to take part in class discussions. It was my hope that the students would discover that active participation in discussions is a great way to learn and can be emotionally, socially, and intellectually rewarding.

If I had answered the honors coordinator's question in 2007, my answer would have been quite different. I would have suggested the honors faculty use the approach I am detailing in this book. They should establish a rationale for the use of discussion in college learning. This would include explaining why class participation is a vital element of students' learning, that discussions unlock the intellectual diversity of each member of the class and allow all members to learn from one another's ideas. The faculty should also present research findings demonstrating that discussion easily surpasses lecture as a deep learning process (Terenzini, Cabrera, Colbeck, Parente, & Bjorklund, 2001) and leads to the examination of diverse viewpoints, helps with the discovery of new ways to solve problems, trains us to speak clearly and concisely, and teaches us how to listen to others and give meaningful

feedback. In addition, the faculty should explain to the students that, because most professionals spend their workdays discussing issues with clients, patients, customers, colleagues, and bosses, speaking and listening are among the most important skills they need to develop; if they cannot speak and listen effectively, their careers can be negatively affected. In addition, I would have told the coordinator that the faculty would need to teach the students how to engage in effective discussion, because most students are not well versed in these skills.

The lesson I learned from the honors students is that students need good reasons to take learning risks. This is a lesson we will all need to remember as we implement a learner-centered practice.

Learner-Centered Teaching Does Not Resemble What Students Think of as School

By age 18, our students have spent 70% of their lives in school (Leamnson, 1999, p. 35), with each school year looking a great deal like the one before. Our students know school is most often a place where the teacher does the talking and the students do the listening, note taking, completing of worksheets, and test taking. They know their teachers' communication with them most often takes the form of directions, such as, "Sit down and be quiet" and "Turn in your homework." Students also know school as a place where they are often given time to do their homework in class and effort is rewarded with a passing grade. The learning choices students are given are usually limited and may include selecting the topic or book they would like to write about. Basically they must do their work and pass, or not do their work and fail. The only area of real control students have over their learning is the degree to which they choose to engage in the learning process, but even that control is limited, because if they choose not to engage in learning, they must suffer the consequences.

It is easy to understand why students who have never experienced a learning environment where meaningful control and choices about learning were offered, or where opportunities for firsthand learning existed, would be tentative, cautious, and uncomfortable in a learner-centered environment. It is also not surprising that these students would be upset by a learning approach where the role of the teacher has changed so much that it appears as if the teacher is not doing his or her job.

From many students' perspective, if the teacher is not talking, then he or she is not teaching. The teacher as facilitator is a role college students rarely see their teachers playing. I can recall a time in my early teaching career when I first began using small groups, and one of my students said to me as he was leaving the classroom, "So you didn't feel like teaching today." At that time, many students had not been exposed to group learning and did not understand its value or why it would be an effective way for them to learn. They did not view group learning as a useful learning tool. I soon realized that I had not prepared my students for learning in groups, that I had thought they would figure it out on their own, which, of course, they did not.

Another common student reaction to a learner-centered environment in higher education is that students feel that, since they are paying for their education, the teacher should be doing the teaching. They should not have to "help" the teacher do his or her job. There is a clear disconnect between what we want them to do in a learner-centered classroom and what they see as their role in the learning process.

Students Do Not Want to Put Forth the Extra Effort Learner-Centered Teaching Requires

Faculty often hear students complain that learner-centered teaching requires more work. This observation by our students is correct. I regularly tell faculty that it is the *one who does the work, who does the learning.* Our students will be asked to do more firsthand work, more teamwork and group work, more research and investigation, more reflection, and more talking and listening. All of these learning activities require a certain amount of effort; they are not passive, sit-there-and-listen activities.

Cross (2001), in discussing American students' views about effort, states, "One of the oddities of traditional American culture, especially the youth culture, is that it is better to be thought lazy than stupid. Thus, in the competition of the classroom, students prefer to be seen by others as succeeding through ability rather than through effort." In other words, giving more effort is disdained not only because it means more work but also because in our American culture many students believe if you have to work at learning, you must not be very smart. I explore this view of effort, part of a larger view of learning that students take with them as they develop their own self-theories about learning, more fully later in this chapter.

There are certainly other reasons why students do not see the need to use effort unless it is absolutely necessary. One is the use of extrinsic motivators, which often cause students to do as little as possible. This is discussed later in this chapter. Another effort inhibitor is the sense of pride some students take in doing the least amount of work possible and still earning a good grade. I call this the efficiency of effort model. A great example of this came from my own 16-year-old son. He is an excellent student but, more important, a genuinely curious, investigative, and self-motivated learner. He recently told me that he is going to read *A Walk in the Woods* by Bill Bryson (1999) for his first book report in his literature class. This is his all-time favorite book, a book he has read twice and listened to on tape three times. When I asked if he thought it might be better to expand his reading horizons and choose a book he had not read, he replied, "When the opportunity comes along to use very little effort to accomplish a major assignment in a class, you have to take advantage of it." He then added, "I have a lot of work in my other classes, plus golf practice, so I would be stupid not to take advantage of this." His philosophy of effort was: only use it when you have to. In truth, however, this efficiency of effort view, although appearing to make good sense, just detracts from learning.

For example, the conclusion of almost all of those who research the topic of greatness find that greatness is to a greater extent the result of hard work and effort, and more hard work (Colvin, 2006). If our students are to succeed both in college and beyond, one of the greatest gifts we could give them is to help them improve their efforts to learn.

Students' Mind-Sets About Learning Make Adapting to Learner-Centered Teaching More Difficult

Thousands of students each semester pay tuition to take courses in subject areas they firmly believe they cannot learn. This belief results from the fixed mind-set that these students have developed about learning a particular subject (Dweck, 2006).[1] Students with a fixed mind-set view intelligence and ability as fundamentally fixed at birth and unchangeable. These students see themselves and others as smart, average, or dumb. They spend a great deal of effort trying to prove that they are "smart" by avoiding failure, which

1. It should be noted that Dweck has found that a mind-set can change from domain to domain, for example, extracurricular activities versus academic activities, and people can be taught to develop a new mind-set.

actually prevents them from engaging in activities that, ironically, would make them smarter. When it comes to certain school subjects, a student with a fixed mind-set believes you either get it or you don't. The majority of college students have this fixed mind-set toward some of their subjects (Covington, 1992). This is also the perspective of most high school students (Steinberg, 1997).

A fixed mind-set has a profound impact on students' views of a variety of learning-related actions. For example, students may see expending effort in certain learning activities as being of little or no use. In addition, students may view tutoring, study buddies, or visits to our offices for extra help a waste of time. Helping our students to replace their false beliefs about learning capacity with an understanding that effort, time, and effective teaching can result in success in any subject, is crucial to optimizing their learning opportunities. It is one of the most important actions we can take to help our students be successful. As Alfred Binet (1911) said nearly a hundred years ago, it is not always the people who start out the smartest who end up the smartest.

The opposite of a fixed mind-set is the growth mind-set. Students with a growth mind-set believe that "your basic qualities are things you can cultivate through your efforts" (Dweck, 2006, p. 7). They believe that "a person's true potential is unknown (and unknowable); that it's impossible to foresee what can be accomplished with years of passion, toil and training" (p. 7). These students take learning risks and view failure only as a message that they need to figure out what they did wrong and work harder to improve. In *Mindset* (2006), Dweck relates an experiment that she conducted with high-ability college students that gets to the heart of how a mind-set affects a person's view of himself or herself as a learner. Students were given a scenario in which, first, they earn only a C+ on a midterm paper; second, they get a parking ticket; and, finally, when they go to share their bad day with their best friend, they get the brush-off. Dweck reported that those with fixed mind-sets reacted with very personal negative statements about these events. Responses included "I feel like a reject," "I'm a failure," and "I'm an idiot." By contrast, the students with a growth mind-set reacted with comments, such as, "I need to try harder in class and watch where I park my car," "I would start studying harder," and "I would pay the ticket and work things out with my friend." According to Dweck, in a growth mind-set, it is not that people do not get upset about parking tickets or a bad grade; it is

that they do not see these occurrences as defining who they are or as threatening their intelligence. They try to learn from their mistakes and move on (p. 8).

The mind-set of students also has a significant impact on the kinds of goals they set as learners. There is general agreement that students may set two types of goals. One is a learning goal, which is described as the desire to increase one's competency, understanding, and appreciation of what is being learned. The other is a performance goal, which involves outperforming others as a means to aggrandizing one's ability status at the expense of one's peers (Covington, 2000). Or, to put it another way, a performance goal setter wants to look good by making others look bad.

The specific hypothesis put forward by those who study this area is twofold: First, learning goals favor deep-level, strategic processing of information, leading to increased school achievement, greater pride and satisfaction in learning successes, and a better ability to handle failure if it occurs (Ames, 1992; Jagacinski & Nicholls, 1984, 1987). Second, performance goals trigger superficial, rote-level processing that exerts a stultifying influence on achievement (Covington, 2000, p. 173). Performance goals are about getting positive judgments of your competence and avoiding negative ones, while learning goals are about increasing your competency (Dweck, 2000, p. 15). Learning goals and performance goals are not mutually exclusive; a student can value the task itself, as well as the outcome of the task (Hagen & Weinstein, 1995).

In *Self-Theories,* Dweck (2000) states that students tend to value one goal over another, though which goals they set may differ in different domains of activity. However, it is important to note that when students have a fixed mind-set, they are more likely to set performance goals in an academic setting (p. 18).

Additionally, as stated earlier, students who see failure as an enemy to be avoided may become helpless in learning situations, and when this response occurs repeatedly, it will inhibit learning (Dweck, 2000, p. 26). One of the most important findings for all college teachers to remember is that it is possible to positively influence students' mind-sets, and when this occurs, students' learning goals can change as well (p. 26).

Many Students Follow the Path of Least Resistance in Their Learning

I regularly describe students who take the path of least resistance as minimalist learners. These are students who adhere to the philosophy, "Whatever is

the least I have to do to get the grade I need is the way to go." They often ask, "How many points is this worth?" followed by, "How many points do I need to get an A, a B, or a C?" These questions reflect a lifetime of learning in an environment where trying to gain a reward or avoid a punishment was the goal. The goal of minimalist learners is the grade, not the learning.

Students' motivation for learning has a big impact on what path they take as learners. Research on students' motivation to learn has recently focused on two distinct incentive systems. Covington (2000) offered this description of the first one:

> The first system assumes that students are optimally motivated by there being fewer rewards than there are players in the learning game, i.e., turning students into competitors for recognition and further advancement. This model derives much of its justification from the view of motives-as-drivers, which typically considers motivation an enabling factor, i.e., the means to superior performance. This scarcity of rewards disrupts learning by encouraging negative achievement goals, such as avoiding failure, rather than positive goals, such as striving for success. Special attention is given to the particularly devastating impact of reward scarcity on disenfranchised students and students of color, as well as on teachers themselves. (p. 172)

Regarding the second incentive system, which is viewed as an alternative to the competitive model, Covington (2000) states that it assumes that

> motivation is optimal when there exists an abundance of payoffs for learning, and payoffs of many kinds, not just tangible, extrinsic rewards like grades or gold stars, but also intrinsic sources of satisfaction, as well as a variety of ways in which to earn these rewards, ways suited to individual learning styles. This model reflects an emphasis on motives-as-goals that draw, not drive, individuals toward action, and generally for ennobling reasons: for the sake of curiosity, exploration, and self-improvement. (p. 172)

This second incentive system is an integral part of a learner-centered approach to instruction. Kohn (1993) strongly suggests that the use of rewards will likely reduce students' learning because it makes the reward, rather than the learning, the goal of the schooling process (e.g., p. 211). This narrow focus on the grade as the important outcome was brought home to me while teaching a graduate course in content area reading a few summers ago. About three weeks before the end of the course, an older adult student approached me and asked what her final grade would be if she did not do

the final project. I asked her, naïvely, why she would not want to complete the course and learn as much as possible about how to help her students improve their reading skills. She replied that she was taking the course because she needed three more credits to get a pay raise at her current school, and a grade of B would be sufficient to meet the criteria set by her school district. She was using the same philosophy as my 16-year-old son: use only as much effort as needed to get the reward you are seeking. I told her that she would earn a B even without the last project. She thanked me and did not return to class for the rest of the semester.

As I reflected on this student's behavior, two things bothered me. One was my own naïveté in not making the requirement for passing the course the successful completion of all assigned projects. Learner-centered teaching is about giving students some control and choice over their learning. However, in doing so, I should not have abdicated my responsibility to prepare my students as completely as possible to be effective teachers. The second thing that bothered me was my failure to make the learning more relevant and meaningful to this student. I felt that if I had done a better job of getting her to see the value in learning all she could to help her own students, perhaps she would have attended the rest of the classes.

Now, as I think back on this incident, I realize two important things. First, even if I had done an excellent job of creating a compelling reason for learning everything that was available in the course, this student still might have opted for the low-effort route. I know that, in the end, each student will make his or her own decisions about what is important in his or her learning life. Second, minimalist behaviors are not limited to students. They are also found among faculty and contribute greatly to the continuance of a teacher-centered approach to college instruction. By choosing what is best and easiest for the teacher when making decisions about students' learning, faculty are practicing a form of minimalism. Learner-centered teaching takes more time, effort, creativity, and involvement than does teacher-centered practice, for both the students and the teacher. When we look at the work involved in optimizing our students' opportunities to learn, it is not difficult to see why some teachers are resistant to learner-centered practice for the same reason students are: it involves more work and effort. For these faculty to embrace a learner-centered approach, they will need to make both a philosophical change and a pedagogical one.

Zull (2002) makes the case that this minimalist behavior comes from the brain seeing extrinsic motivation as a "loss of control" (p. 53). According to him, the brain has evolved over 5 million years to detect and resist exactly this type of situation. He states, "In fact, one of the things the brain does best is decipher deceptions like extrinsic rewards" (p. 53). Zull is not suggesting that there is no value in the use of rewards or punishment; he acknowledges that they are useful tools to initiate interest in new areas of learning or to sustain engagement when things get tough (p. 53). The point is that, as an overall strategy for teaching and learning, the use of rewards and punishments falls far short of creating a sustainable learning environment. Our students are just too wise to how this game is played. Finally, extrinsic rewards can lead students to consider other creative ways to get the rewards, including turning in someone else's work as their own and cheating on a test as opposed to studying for it themselves. I am not making excuses for students who do these things, simply pointing out that if the goal is the grade, rather than learning, students can sometimes take a wrong turn in reaching that goal.

For Students to Change Will Take Time

Woods (1994) described the transition students go through when they are asked to enter a completely new learning format (in this case he was describing students' encounter with problem-based learning) as similar to the steps psychologists associate with trauma and grief—steps that begin with initial shock, then move on to resistance, and, finally, end with acceptance. I doubt the changes we are asking our students to make in accepting a learner-centered teaching approach are so traumatic that they will need to grieve over the loss of their old learning habits. I am certain, however, that not only will our students need clear reasons for making the changes, they will need our help to make the changes successfully, and these changes will take time. A colleague of mine shared that when he switched his teaching approach from lecturing to small-group learning in his physics course, his students did not believe there would be no lectures. It was six weeks into the semester before his students accepted the small-group model and realized that he was serious about no longer lecturing. Our students' views of what school should be and the roles teachers should play are strongly ingrained. We must help them to adjust to the learner-centered environment and give them the time they need to accept this approach to teaching and learning.