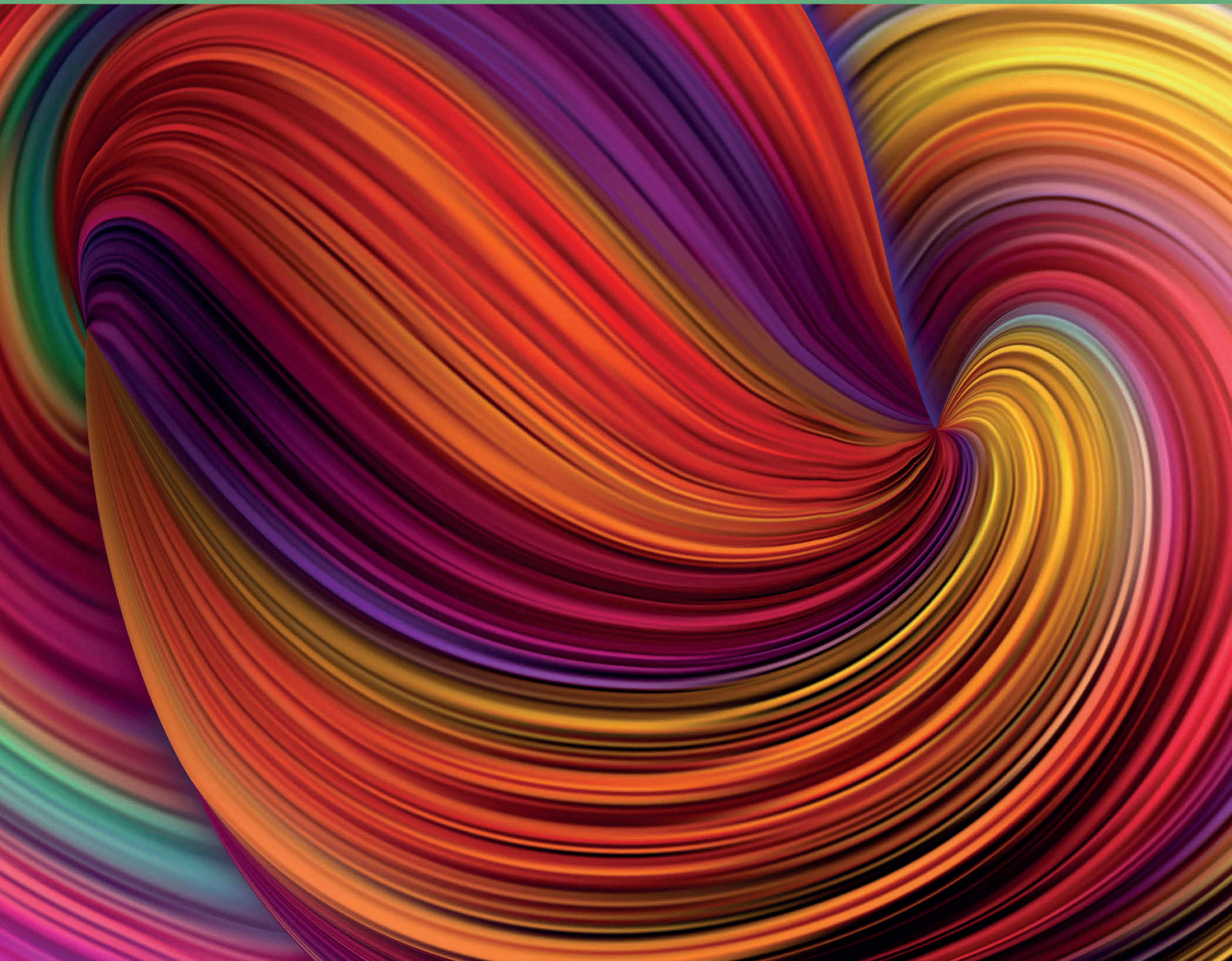
MOTIVATION AND LEARNING STRATEGIES FOR COLLEGE SUCCESS

A FOCUS ON SELF-REGULATED LEARNING

SEVENTH EDITION

Helena Seli



Motivation and Learning Strategies for College Success

Now in its 7th edition, *Motivation and Learning Strategies for College Success: A Focus on Self-Regulated Learning* provides a framework organized around motivation, methods of learning, time management, control of the physical and social environment, and monitoring performance that makes it easy for students to recognize what they need to do to become successful learners. Full of rich pedagogical features and exercises, students will find Follow-Up Activities, Opportunities for Reflection, Chapter-End Reviews, Key Points, and a Glossary. Seli focuses on the most relevant information and features to help students identify the components of academic learning that contribute to high achievement, to master and practice effective learning and study strategies, and to complete self-regulation studies that teach a process for improving their academic behavior. Combining theory, research, and application, this popular text guides college students on how to improve their study skills and become more effective, self-regulated learners.

New in the 7th edition:

- Increased focus on students' lived experiences based on race, gender, socio-economic status, and ability
- Increased coverage on cultural responsiveness and equity in education
- Additional content relevant for students with special needs
- Acknowledgement of the impact of COVID-19 on higher education
- General updates throughout to citations and research since the previous edition
- Updated companion website resources for students and instructors, including sample exercises, assessments, and instructors' notes

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Motivation and Learning Strategies for College Success

A Focus on Self-Regulated Learning

Seventh Edition

Helena Seli

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To Myron H. Dembo, a great mentor and friend,
in honor of his enduring legacy

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Preface

Perhaps you are reading this textbook because you are enrolled in a learning strategies' course at a community college or university. Perhaps you are simply interested in gaining insight into learning and want to improve your academic performance. Wherever you are on your academic path, welcome to the journey of understanding the human mind and its translation into effective self-regulatory strategies that research has demonstrated support performance outcomes. This textbook is the result of an instructional program originally developed by Dr. Myron H. Dembo, Emeritus Professor of Educational Psychology at the University of Southern California, and evaluated with a wide range of college students. Together, Myron Dembo and I have used the self-regulation approach presented in this text with students in high schools, community colleges, and four-year colleges.

While recognizing that several factors contribute to academic success, this book focuses on the student's responsibility for determining what behaviors or beliefs need to be changed. The process of change begins by observing and reflecting on one's own behavior and then determining what needs to be changed and learning how to change. The features of this textbook are designed to identify the components of academic learning that contribute to high achievement, help students learn and practice effective learning and study strategies, and then complete self-regulation studies whereby they are taught a process for improving their academic behavior.

FEATURES OF THE TEXT

There are specific features in the text that are designed to accomplish the goal of supporting self-regulated behavior. First, the text reviews six components that students need to regulate or manage to become successful learners—motivation, methods of learning, time management, physical environment, social environment, and monitoring performance. These components serve as the basis for organizing and integrating the content throughout the text. Further, this focus allows for the integration of both motivation and learning strategies. As students learn new learning strategies, they must develop the motivation to use them.

Second, the text begins with an overview of important research and theory to help students understand the reasons for the different study and learning strategies presented in the text. Most study skill textbooks are atheoretical; that is, little, if any, research or theory is presented to students. Myron Dembo and I believe that learning how to learn is a specific academic specialization based on scientific knowledge, and students should learn this knowledge. Furthermore, we find that students are more motivated to learn when the course is conducted like a "real" academic course and not as a remedial experience.

Third, various Exercises are included in each chapter to help students observe and evaluate their own learning and study skills. In addition, more detailed Follow-Up Activities at the end of each chapter allow students to apply the content to their own academic learning. The primary purpose of these experiences is to encourage self-observation and evaluation.

Fourth, each chapter includes Follow-Up Activities that identify a topic for a self-regulation study. The appendices provide information as to how to conduct a self-regulation study (Appendix B) and include two studies conducted by students (Appendix C) in a "learning to learn" course. Note the instructor's evaluation at the end of each self-regulation study. The appendices should be read before students begin their own study.

Fifth, the Student Reflection sections allow students to read about the experiences of other students as they attempt to change their behavior and become more successful students.

Sixth, at the end of each chapter, a review of the specific procedures for using a learning strategy is provided. This section is particularly useful for students when they need a quick review of how to implement a given strategy.

Seventh, the Key Points at the end of each chapter highlight the important ideas presented in each chapter.

Eighth, a Glossary is included, with important terms in bold in the text.

OVERVIEW OF THE CHAPTERS

Unit I of the text has three chapters. Chapter 1 "Academic Self-Regulation" identifies the academic components that students need to control to attain their academic goals. In addition, the chapter introduces a four-step process used to change behavior—self-observation and evaluation, goal setting and strategic planning, strategy implementation and monitoring, and strategic-outcome monitoring. This process is used as the basis for conducting a self-regulation study and is explained in depth in Appendix B.

Chapter 2 "Understanding Motivation" helps students understand how motivation can influence learning behavior. Important exercises are included to help the reader evaluate their own motivation.

Chapter 3 "Understanding Learning and Memory" introduces the information-processing system and explains why students remember and forget information. This chapter emphasizes that the way students learn often determines what they remember.

Unit II of the text focuses on motivational strategies. Chapter 4 "Goal Setting" instructs students how to write and implement specific goals. This chapter emphasizes that students cannot be motivated unless they have goals to attain in different areas of their life.

Chapter 5 "Self-Regulation of Emotions" focuses on how to change negative emotions to more positive emotions, managing self-talk and reducing anxiety.

Unit III of the text deals with various behavioral strategies related to academic success.

Chapter 6 "Time Management" explains how students can better manage their time rather than having time manage them. Specific strategies to combat procrastination are presented.

Chapter 7 "Self-Regulation of the Physical and Social Environment" focuses on improving attention and concentration, and structuring productive study environments. In addition, the chapter provides information on how to seek help from instructors and conduct effective group study sessions.

Unit IV of the text introduces important learning and study strategies.

Chapter 8 "Learning from Course Materials" and Chapter 9 "Learning from Class" use excerpts from textbooks and lectures to help students practice the skills learned in the chapters.

Chapter 10 "Preparing for Exams" helps students develop a study plan for each exam.

Chapter 11 "Taking Exams" provides information about specific strategies for taking objective and essay tests.

WHAT'S NEW IN THE 7TH EDITION?

There are a few trends in higher education that are acknowledged in the 7th edition. First, the outbreak of the COVID-19 pandemic in 2020 caused universities to close campuses and shift to online teaching and learning. The experience demonstrated the benefits of online learning in terms of accessibility and engagement and as a result, many colleges have embraced online learning or at the minimum hybridized instruction. The 7th edition focuses on how to implement the learning strategies in media-rich environments such as learning via flipped instruction. The text continues an emphasis on the positive and negative role of technology in learning situations. The text encourages students to locate widely available apps, recognizing that new apps are launched constantly. On the other hand, the text discusses the cost of technology-related task switching in multiple chapters. Second, more and more non-traditional students (25 years or older) and students from historically marginalized backgrounds are entering colleges and universities. In addressing you as a reader, I recognize that many of you are either non-traditional students or students from historically marginalized backgrounds and have unique experiences that need to be recognized. The text acknowledges phenomena such as the experience of microaggressions and imposter syndrome and presents ways to address it.

In addition to updated references, the seventh edition introduces the following:

- The role of sociocultural and historical factors in self-regulation, particularly in the context of marginalization (Chapter 2)
- Microaggressions, emotional intelligence, and self-compassion (Chapter 5)
- Imposter syndrome and ways to address it (Chapter 7)
- Reading resources for students with learning differences (Chapter 8)

The current edition includes a companion website that offers helpful information for teaching the material, such as sample essay test questions, and provides exercises and experiences for students in addition to those in the text. The web-based experiences connect students to valuable resources about topics related to areas of self-regulation. The companion website also encourages students to conduct research to go more in depth with the theories and concepts discussed in the chapters. Finally, it includes information on how students can maintain a portfolio to demonstrate their acquisition of learning and study skills and guidelines for helping students complete a self-regulation study of their own academic behavior.

It is suggested that Unit I of the text be covered first to provide a framework for both the content and exercises in the subsequent chapters. The remaining chapters can be covered in any order. One of the difficulties in teaching a “learning to learn” course is that one would like to cover many topics during the first two weeks, because everything is important. Unfortunately, all the chapters and topics cannot be taught in the first few weeks. This textbook allows the instructor to sequence the chapters as they see fit.

Finally, I would appreciate reactions from students and instructors concerning the text. Please email me at helena.seli@rossier.usc.edu. I welcome your praise and criticism.

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—Helena Seli

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Credits

Figure 2.2. From Hirabayashi, K. (2015). *Motivational Indices and Constructs* [Class handout]. Rossier School of Education, University of Southern California. Adapted with permission from author.

Figure 6.1. From Covey, S. R. (1990). *The 7 Habits of Highly Effective People*. Simon & Schuster. Adapted with permission from Simon & Schuster.

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Part 1

Foundations of Learning and Motivation

Chapter 1: Academic Self-Regulation
Chapter 2: Understanding Motivation
Chapter 3: Understanding Learning and Memory

The purpose of this unit is to review how you can become a more successful learner by taking charge and regulating your own learning. To accomplish this goal, the unit reviews how we learn and the factors that determine motivation to learn. Learning and motivation are interrelated processes. Simply learning a new skill does not mean that you will use it unless you are motivated to do so. Therefore, the objectives of this unit are to present research-proven, effective learning strategies and to convince you that there are payoffs for using them. These payoffs include the possibility of higher grades, more time to participate in enjoyable activities, and the confidence to become a successful learner in any course. The three chapters in this unit provide a framework for understanding the need to use different strategies to manage the factors that influence academic achievement. The remaining units review how and when to use these strategies.

Chapter 1 presents a model for **academic self-regulation** that identifies six components that you control—motivation, methods of learning, use of time, physical environment, social environment, and monitoring performance (Zimmerman & Risemberg, 1997). These components are organized by categories: motivational, behavioral, and learning and study strategies. Finally, a four-step process

Academic Self-Regulation: The strategies students use to control the factors influencing their learning.

Cognitive: Explanations of learning and motivation that focus on the role of the learner's mental processes.

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is described to help you change aspects of your academic career.

Chapters 2 and 3 provide an overview of learning and motivation from **cognitive** and **social cognitive** perspectives. Cognitive psychologists believe that behavior is always based on cognition—an act of knowing or thinking about the situation in which the behavior occurs. As a result, they believe that learning can be explained by how knowledge is processed and organized. This means that the way one learns is an important factor in how much is remembered. The social cognitive view of learning and motivation focuses on how an individual's internal state (i.e., their goals, beliefs, perceptions, and emotions) as well as external, contextual circumstances influence behavior.

Social Cognitive: Explanations of learning and motivation that explain learning and motivation as an interaction between cognitive, behavioral, and contextual factors.

1 Academic Self-Regulation

As readers of this book, you are a diverse group with varied backgrounds and goals. Some of you are beginning your education at a college or university, whereas others have selected a community college. Some of you may have taken college courses last term, whereas others are returning to school after an absence. Some of you are full-time students, while others may have significant responsibilities such as a job and caring for dependents. You may even be taking all your courses online. Some of you are taking a learning and study skills course because it is required, whereas others are enrolled in the course as an elective. Some of you are looking forward to taking the course, while others may doubt its usefulness. Wherever you are on your journey as a student, there is one goal: to help all those who read this book become more successful learners. Once you learn how to learn, you can apply these skills to any academic or work setting in which you participate.

Before we get further into this chapter, although the book focuses on self-regulation as a critical internal factor for success, no one's academic success is ultimately up to internal factors alone. There is a host of external factors that also impacts your success, most importantly, support from the educational institution and its agents such as the faculty and your academic advisor. Historically, with the exception of historically black colleges and universities, higher education institutions in the United States were designed to serve white students and more specifically, those who are male, Christian, and able-bodied. Due to higher education's racial-colonial foundations and a history of marginalization, the cultures and practices of some current educational spaces currently do not equitably affirm and validate students from historically marginalized groups (Stein, 2018). This is the case even though the higher education population has become increasingly diverse (NCES, 2022). We will discuss the impact of external factors on motivation and self-regulation in depth in Chapter 2.

With the focus on self-regulation in academic success, let's define a successful learner. Most of us know, read about, or have observed successful and expert individuals in some field or profession (e.g., a musician, athlete, plumber, teacher, or artist). These individuals have special knowledge and skills in a particular field. Similarly, successful learners also possess special knowledge and skills that differentiate them from less successful learners.

Successful students are not simply individuals who know more than others. They also have more effective and efficient learning strategies for accessing and using their knowledge, can motivate themselves, and can monitor and change their behaviors when learning does not occur.

Just as individuals cannot learn to become expert musicians, dancers, or golfers without practice, learning to be a successful learner requires more than simply reading and listening to class lectures. For this reason, you will be asked throughout this book to respond to questions and exercises, and to actually practice some new ways of learning. The key to success is practicing the learning strategies taught here so they become automatic. As you practice, you will be able to learn more material in less time than prior to using these new strategies. Thus, you will learn to study "smarter," not necessarily harder.

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Most of you have expertise in some activity or hobby. You have spent considerable effort and persistence in acquiring knowledge and developing your skills, and probably feel competent and motivated to excel. Much of the same self-discipline and self-motivation you apply to your present area(s) of expertise will be needed in your pursuit of academic excellence. After studying this chapter, you will be able to:

- identify specific behaviors that influence the level of academic success
- use a process to self-regulate your academic behavior.

WHAT IS ACADEMIC SELF-REGULATION?

At one time, it was thought that intelligence was the main factor in determining academic success. After years of research in learning and motivation, educators have found that students can learn how to become more successful learners by using appropriate strategies to manage their motivation, behavior, and learning.

The word self-regulation is a key term in understanding successful learners. Self-regulation involves self-reflective, motivational, and behavioral processes (Zimmerman, 2015). Self-regulated learners control the factors influencing their learning. They establish optimum conditions for learning and remove obstacles that interfere with their learning. Educators use a variety of terms to describe these students: self-regulated, self-directed, strategic, and active. No matter what term is used, the important factor is that these students find a way to learn. It does not matter if the instructor is a poor lecturer, the textbook is confusing, the test is difficult, the room is noisy, or if multiple exams are scheduled for the same week, successful learners find a way to excel.

Let's look at an example of how one student managed his academic learning:

It was Thursday night and Robert was completing his final preparation for the following day's history exam. On the previous Sunday evening, he developed a plan for how he would prepare for the exam during the week. He identified what he had to learn, how he would study, and when he would accomplish each task. He began his study on Monday, attempting to gain a general understanding of the main ideas and to recall the most important facts. He paraphrased each section of the readings, underlined the important information, and monitored his own progress during study by developing possible questions that might be asked on the exam. While studying on Wednesday night, he realized that he had difficulty comparing and contrasting some of the battles discussed in class. Therefore, he decided to develop a chart listing the different battles on top and different characteristics down the side. When he filled in the information on the chart, he found he was better able to answer the questions that might be asked regarding the material.

Around 10 p.m. on Thursday, Robert's roommate came home from the library with some friends and began discussing a concert they planned to attend over the weekend. They were finished studying for the night. Robert decided to go to the study lounge down the hall to complete his last hour of studying. He told his friends that he would return for pizza around 11 p.m. As he returned to his study, he noticed some information in his notes that he did not understand. He texted his friend for clarification about the notes.

After another 20 minutes of studying, Robert got tired and started thinking of the double cheese and mushroom pizza he would be eating in a short time. He decided that he needed about 30 minutes to finish his studying for the evening. He decided to take a five-minute break and go for a walk. He came back and finished his study for the evening.

What actions did Robert take to ensure optimum learning? First, he established a goal and action plan for how he was going to prepare for the examination. The plan started four days before the exam. Second, he used a variety of learning strategies, such as underlining, developing and answering questions, and making a chart to better compare and contrast the relevant information. In other words, when he found that he was not learning, he did something about it by changing his learning strategy. Third, he monitored his understanding of the material as he studied. He changed learning strategies and asked for help when he failed to understand his notes. Fourth, when his friends returned from the library, he decided that he would not be able to study in his room, so he left for the lounge. Finally, when he began to get tired and became less motivated to complete his studying, he took a break and was then able to return to his work. All of Robert's decisions played a major role in his ability to do well on the history exam the following day.

Given the same situation, think about how another student with less knowledge about learning and study strategies and fewer self-regulation skills might have behaved in the same situation. The example just presented came from a student's journal. The situation occurred exactly as stated, only "the name was changed to protect the innocent." Robert did not come to college as an A student. As a matter of fact, he struggled during the first few weeks of the first term. When he began to learn how to learn and to take responsibility for his own learning, his academic performance improved dramatically.

As you develop the personal qualities to manage your learning, you will find that you can apply the same skills to situations outside the classroom, even at work. It does not matter what course, seminar, lecture, or job you experience, once you manage and regulate the factors influencing your learning, you can be more successful in any task.

A student came to my office to discuss the amount of work she had to do in the learning course. She tended to turn in assignments late and, in general, appeared to have difficulty managing her time and motivation. During the conversation, she stated that she only wanted a C in the course. I stated that I had no problem giving her a C, but that many students who set this standard often underestimate their achievement and earn a D. I decided to pursue the issue further by asking the student the following question: "Are you also willing to find an average job and get an average salary?" "Oh no!" she stated, "I want a rewarding career and plan on making a great deal of money!"

Individuals fail to realize that the self-regulation strategies used to become more successful learners generalize to their personal and work lives. Who is more likely to be promoted in a job, an employee who can work independently and set and attain goals, or an employee who sets low performance goals and needs constant supervision in their daily work? Educators who emphasize the importance of self-regulation take the position that students can do a great deal to promote their own learning through the use of different learning and motivational strategies. In other words, these learners view academic learning as something they proactively do for themselves rather than as something that happens to them (Zimmerman, 2015).

WHAT IS THE DIFFERENCE BETWEEN HIGH SCHOOL AND COLLEGE?

The most common observations of new college students are that, compared with high school, professors cover content at a much faster rate, that classes meet only two or three times a week as opposed to every day, and that there are fewer exams and fewer grades. Another difference is the change from a teacher-directed to a student-directed environment. In high school, many teachers tend to guide students' learning by telling them what, when, and how to learn. For example, when assignments are given, high school teachers frequently help students manage the tasks necessary to complete the assignment, such as requiring outlines or drafts of papers. They may also use an electronic system that alerts students about all the due dates. In college, students are mostly on their own. They can ask questions and obtain more information about an assignment, but rarely does a college instructor monitor students' progress or carefully remind them about all the due dates. In college, students are expected to manage their own learning (Bembenutty, 2011).

Another difference between high school and college is that high school teachers often spend considerable time attempting to motivate students to learn, whereas college instructors generally expect students to be self-motivated. Although students are told about the demands of college, many freshmen experience culture shock when they enter college. The following are comments written in a journal by a student in her first term in college.

> My professor was completing his last lecture on the first unit of the course and asked if we had any questions. We had to read chapters in three different textbooks, and I had about 40 pages of notes. I simply asked: "Could you tell us what are some of the important ideas you might cover on the exam?" He looked at me and said: "That's for you to determine!" Well, I felt like crawling under my desk. In high school, most of my teachers would summarize the key ideas that would direct our studying behavior. Here, I quickly learned that I have to do this work on my own!

WHAT ARE SOME FACTORS THAT LEAD TO SELF-REGULATION CHALLENGES?

You likely agree that effective self-regulation is a critical internal contributor to academic success. What are some reasons for self-regulatory failure? Let's review the most common reasons next.

Faulty Beliefs about Their Ability, Learning, and Motivation

Some students believe that ability or intelligence is fixed. That is, they believe people are born with a certain amount of ability, and there is not much that can be done about it. This misperception may cause some students to accept low achievement or to become satisfied with a B or C average, thinking that only the most intelligent students can obtain an A. In reality, psychologists have found that self-discipline is more important in predicting academic performance than intelligence (Duckworth & Seligman, 2005).

It is unfortunate that many students go through school thinking they are not good learners and that little can be done to improve their achievement. This faulty belief often remains with individuals throughout their lives and limits their goals and aspirations. The problem is not that these students are incapable of being successful learners; they simply have not been taught how to study and learn effectively.

Lack of Awareness of Ineffective Learning Behavior

Many students believe that if they simply spend a good deal of time studying, they will be successful. Successful learners do work hard, but they realize that how they study is more important than how much time they spend studying. For example, many college students report that they spend considerable time reading the required chapters many times before an examination. Some students are not aware that the practice of underlining (highlighting) words and phrases in textbooks and simply rereading is generally an ineffective learning strategy because it consists of relatively passive activities involving little thinking. It is possible to spend considerable time underlining or rereading a chapter and still not remember many of the important ideas presented. Reading and remembering are two different tasks. Unless students are actively involved in outlining, organizing, questioning themselves, and summarizing the material while they read, much of the time is wasted (Cortina et al., 1995).

Lack of Readiness to Change Learning and Study Behavior

Some students are not convinced they need to change. After all, they got through high school and were able to get into college. These students often raise questions, publicly or privately: "Why do I need to change?," "I graduated from high school," or "I was accepted to this college." It is not until the first midterm exams that some students realize that many of the learning and study skills used in high school are insufficient for academic success in college. The earlier students become aware of this fact, the quicker they can begin to make the necessary changes.

Although many students realize they need to improve, they may stick with familiar strategies, even though they are not achieving the best results. They simply are not motivated to change. Some students believe that it takes too much effort and time to learn new methods of learning. Learning to play a new song on the guitar or a new dance routine takes effort. Yet, because individuals enjoy the activity and gain special satisfaction from excelling in an area, they do not consider it work. When students use their effort and time more wisely and use more effective methods of learning, they find that the amount of effort and time does pay off in terms of higher grades, greater knowledge and confidence, and more time for fun.

WHAT ARE THE SIX COMPONENTS OF ACADEMIC SELF-REGULATION?

The following are six major components of academic self-regulation. Learning and mastering the self-regulatory skills related to each of these components can help you exert control over your own learning and promote your academic achievement (adapted from Zimmerman & Risemberg, 1997):

- Motivation
- Methods of learning
- Use of time
- Physical environment
- Social environment
- Monitoring performance

Motivation

"Each semester, I write down specific and measurable goals that I want to attain."
"When I lose focus, I talk to myself to motivate me to keep on task."

Although there are many different ways to define motivation, the approach taken in this book views motivation as the internal processes that give behavior its energy and direction.

These internal processes include your goals, beliefs, perceptions, and expectations. For example, your persistence on a task is often related to how competent you believe you are to complete the task. Also, your beliefs about the causes of your successes and failures on specific tasks influence your motivation and behavior on those tasks in the future. For example, students who perceive failure to be due to lack of ability behave differently from students who perceive failure as resulting from lack of effort.

In Chapter 2, you will learn that when you understand and if necessary, change your beliefs and perceptions, you change your motivation. During a presentation on self-motivation at a high school, a student once asked me: “You mean that if you are bored, you can do something about it?” It was obvious that the student had not thought about the extent to which she had the ability to control her own motivation.

Think about the pilot of a 747 who wakes up in the morning knowing that she must fly a few hundred people from Los Angeles to New York, or the surgeon who must perform a delicate heart operation. The public is fortunate that these individuals know how to motivate themselves even when they do not feel like doing something. It would be alarming to hear a pilot say: “I don’t feel like flying today,” or a surgeon say: “Not another operation, I’m not in the mood.”

One of the major differences between successful and less successful individuals in any field or specialization is that successful individuals know how to motivate themselves even when they do not feel like performing a task, whereas less successful individuals have difficulty controlling their motivation. As a result, less successful individuals are less likely to complete a task, or more likely to quit or complete a task at a lower level of proficiency. Although successful learners may not feel like completing required tasks, they learn how to motivate themselves to maintain progress toward achieving their goals. Another issue is whether one has a problem in motivation or persistence. A student may be motivated to engage in a task but may have difficulty persisting because they easily becomes distracted while engaging in the task.

Think about your own behavior. Identify a situation in which follow-through, not beginning the task, was a problem. That is to say, you really wanted to complete a task, but you had difficulty persisting because you were easily distracted. Also, think about a situation in which you were successful in controlling your behavior in a potentially distracting situation. Which self-regulatory strategies did you use to maintain your persistence in a task?

There are a number of important motivational self-regulatory techniques that can be used to develop and maintain motivation. The first is goal setting. Educational research indicates that high achievers report using goal setting more frequently and more consistently than low achievers (Zimmerman, 2011). When individuals establish and attempt to attain personal goals, they are more attentive to instruction, expend greater effort, and increase their confidence when they see themselves making progress. It is difficult to be motivated to achieve without having specific goals.

A second motivational self-regulation technique is self-verbalization, or **self-talk**. Self-talk or inner speech is the running dialogue inside our heads. What we say to ourselves is an important factor in determining our attitudes, feelings, emotions, and behaviors. Some of our self-talk motivates us to try new tasks and persist in difficult situations; other self-talk is unproductive and inhibits our motivation to succeed. In studying competitive tennis players, Fritch et al. (2022) established that during a match, tennis players frequently engage in self-talk. Their self-talk was related to the emotions they experienced during the match and worked to regulate their negative emotions. Self-talk is relevant in the context of academic performance as well. For example, you can use verbal reinforcement or praise following a desired behavior such as doing well on a quiz and completing a successful exam study session. You simply tell yourself things such as: "Great! I did it!" or "I'm doing a great job concentrating on my readings!" In fact, as you will read in Chapter 5, it might even be better if you do this in the second person ("Great! You did it!"). You can reinforce yourself either covertly (to yourself) or aloud. At first, you may think it sounds strange or silly to use self-verbalization. Once you get familiar with it, you will find that it works. Don't underestimate the power of language in self-control of motivation. World-class athletes have been trained to use verbal reinforcement for years.

Another motivational self-regulation technique is arranging or imagining rewards or punishments for success or failure at an academic task. Students who control their motivation by giving themselves rewards and punishments outperform students who do not use this control technique (Zimmerman, 2015). What self-control strategies have you used in the past to control your motivation? The following are examples reported by our students: "If I study for 50 minutes, I'll go get a latte" or "If I work on my term paper for an evening, I'll treat myself to a pizza."

In summary, to control your motivation, you need to set goals; develop positive beliefs about your ability to perform academic tasks; and maintain these beliefs while faced with the many disturbances, distractions, occasional failure experiences, and periodic interpersonal conflicts in your life. You will have difficulty regulating your behavior if you do not have confidence in your ability to succeed. In turn, you develop confidence in your ability by learning how to use different learning and study strategies that lead to academic success.

METHODS OF LEARNING

"While reading my sociology textbook, I write important questions to answer after reading each main heading."

"I create a timeline to recall the dates of major battles in my history course."

Another term for methods of learning is learning strategies. **Learning strategies** are the methods students use to acquire information. Higher achieving students use more learning strategies than do lower achieving students (Zimmerman & Martinez-Pons, 1988). Underlining, summarizing, and outlining are examples of learning strategies. You will learn in Chapter 3 that different learning strategies serve different purposes.

Think about the large array of tools a plumber brings to each job. If he arrived at jobs with only a few wrenches or pliers, he would not be able to complete many jobs. Just as there are different tools for different jobs, there are different learning strategies for different academic tasks. Successful learners also need a large number of "tools" to increase the probability of their success. For example, knowing how to use diagrams or hierarchies to organize information and how to generate and answer questions from notes and textbooks are important learning tools. Many students who have difficulty learning in school attribute their challenges to a lack of ability when the problem actually may be that they have never been taught how to learn. Some students use one or two major learning strategies for all tasks in all courses such as highlighting and rereading. These are passive learning strategies and not effective to learn the complex material in their coursework. To learn complex material, the necessary tools are meaningful learning strategies such as organizing information into representations or self-testing.

You cannot, however, become a successful learner merely by acquiring new learning and study skills. You also must deal with your motivation (i.e., goals, beliefs, and perceptions) regarding a task. Even if you know how to use an effective strategy, you may not be motivated to use it. Some educators (e.g., Hattie & Donoghue, 2015; Weinstein et al., 2011) describe these two important components of learning as the skill (i.e., learning strategies) and will (i.e., the motivation to use strategies).

Use of Time

"I use the small blocks of time between my classes to get things done."
"I start studying at least one week before exams."

Researchers have found a relation between time management and academic achievement. Students with better time-management skills tend to have a higher grade-point average (GPA) than students with poorer time-management skills. In fact, Britton and Tesser (1991) found that time-management skills measured in the freshman year were more predictive of GPAs in the senior year than were Scholastic Achievement Test (SAT) scores. Similarly, West and Sadoski (2011) found that time-management skills along with self-testing skills were better predictors of first semester medical school grades than the Medical College Admission Test (MCAT) scores.

Why does time management appear to be so important in determining academic success? One explanation is that use of time impacts self-regulation. If a student has difficulty managing their time, they end up doing what is most urgent when deciding which task to do first. If a paper is the next task that needs to be done, one works on the paper; if an exam is the next challenge, one studies for the exam. Little time is spent on any long-term planning to consider the importance of different tasks and how they can best be completed (Zimmerman et al., 2015). With more freedom in college than in high school and the corresponding challenge of balancing homework, extracurricular activities, and, for many students, employment, time management appears as particularly critical for academic success.

How many times have you heard individuals state: "I don't have time." The problem for most individuals is not that there is not enough time to accomplish what needs to be done, but that they do not know how to manage the amount of time that is available each day. When students analyze their use of time, they may find that a great deal of it is wasted.

Physical and Social Environment

"I turn off my cell phone so I can concentrate on what I am doing."
"I go to the library to study before exams."
"When I find that I don't understand some aspects of course material, I immediately make an appointment with my instructor."
"I organize a study group before an examination."

Another important aspect of self-regulation is the ability of learners to restructure their physical and social environments to meet their needs. Environmental restructuring refers to locating places to study that are not distracting such as a study hall or library. However, even in a distraction-free physical place, our laptops, smartphones, and social media provide a constant temptation for media multitasking which negatively impacts performance outcomes. Therefore, regulating one's physical environment refers to not only selecting an appropriate place but controlling the distractions once they occur.

Self-regulation of the social environment relates to an individual's ability to determine when they need to work alone or with others, or when it is time to seek help from instructors, teaching assistants, or peers. Knowing how and when to work with others is an important skill often not taught in school. We will discuss this in Chapter 7.

Educational research indicates that high-achieving students are more likely than low-achieving students to seek help from instructors, just the opposite of what one might expect (Newman & Schwager, 1992). Newman (1991) stated: "Seeking help from a knowledgeable other person can be more beneficial than giving up prematurely, more appropriate than waiting passively, and more efficient than persisting unsuccessfully on one's own" (p. 154).

It would seem logical that everyone would want to use all available resources and seek assistance from instructors and peers. Unfortunately, this is not the case. Some students do not seek help because they do not want to appear incompetent in the eyes of their instructors or peers or fail to seek help because of the extra effort it may entail. For example, in a class discussion, one of the students mentioned that she did not do well on a biology exam because she did not understand the instructor's expectations of the response to the essay questions. I suggested that she meet with the instructor to discuss his expectations. She agreed that this would be a good strategy. However, the following week she stated that too many students were waiting to talk to the instructor, so she got frustrated and left.

Here is another example of the need to seek assistance. A student approached me at the end of the second lecture in the term and stated: "You're not going to count my quiz today, are you? I haven't had an opportunity to buy the textbook." Unfortunately, the quiz counted and the student had numerous opportunities to locate the required five pages of reading for the quiz. He could have read the material at the reserve section of the library, where numerous copies of the reading had been placed or borrowed the reading from another student in the class. In other words, it was his responsibility to get the material.

Both of these interactions with students provide excellent examples of the importance of regulating one's social environment. Think about situations in your past where you would have benefited from managing some aspect of your physical or social environment moreso.

MONITORING PERFORMANCE

"I evaluate the results of each of my exams to determine how I can better prepare for future exams."

"If I find that I don't understand what I'm reading, I slow down and reread the material."

The final factor of self-regulation is monitoring your performance. As individuals we monitor and evaluate our performance both during and after performing. Psychologists call monitoring your performance while performing "metacognition" (Brown, 1978; Flavell, 1976; Zimmerman, 2015). The term literally means "thinking about thinking" and refers to one's awareness of self as a learner. In addition to setting a goal for the study session, organizing the materials, and determining the appropriate study strategies, a metacognitively aware student might analyze the usefulness of learning strategies while she studies and changes them if she fails to understand, stops and rereads when she gets confused, and periodically reviews them to reinforce understanding important relationships. If you would like to score yourself as a metacognitively aware learner, you can access the Metacognitive Awareness Inventory (MAI; Schraw & Dennison, 1994) via the web. **Metacognition** is a skill that will never become obsolete. As the world changes rapidly with advances in technology, metacognitively aware individuals will be successful in coping with new challenges.

Metacognition: Awareness and understanding of one's own thought processes.

The other aspect of monitoring performance occurs after performance. If you are a typical student, you likely get rid of evidence of poor performance on an exam by stashing it into the depths of your backpack or cramming it into a drawer. I can't blame you because I want to do the same when a manuscript is returned to me with critical comments from peer review. But, there are valuable lessons in reviewing and monitoring your work that can help improve your performance. Look for repeated errors such as not following the directions completely or losing points for grammar mistakes. By determining the reasons why you lost points, you can strategize how to improve your preparation and performance. You might want to delay your error review by a few days, though, so you can do it with a calmer and more focused mind.

World-class athletes are good examples of individuals who monitor their performance. For example, competitive skiers often imagine themselves going through each slalom gate before making an actual run and concentrate on remaining relaxed during their run (Garfield, 1984). After each run, they observe and assess their performance (both from their perceptions and on videotape) to determine what modifications are needed to reach greater accuracy on the next run. Once back on the slopes, they often use self-talk to guide their behavior and maintain attention to avoid distractions that may interfere with their performance.

When you learn how to monitor and control your own performance, that is, become metacognitively aware, you become your own coach or mentor. You can practice skills on your own, critique your own performance, and make the necessary changes to meet your goals at a high level of success.

WHAT DOES ACADEMIC SELF-REGULATION LOOK LIKE?

The following example is how one student, Josh, exhibited self-regulatory behavior in each of the components just discussed. Josh's goal was to join the debate team during the second term of his freshman year. He believed he could attain his goal by expending effort (motivation) in preparing for the tryouts. He first decided to study the topics that would dominate the debate season by reading magazine and newspaper articles (methods of learning). He then decided to practice his arguments with another friend (social environment) who also was interested in joining the team. They decided to reserve space at the speech clinic two evenings each week (time management) and use the available recording equipment (physical environment) to videotape their presentations and spend time critiquing themselves (monitoring performance).

Would Josh and his friend be successful if they failed to manage one or more factors influencing learning? For example, could they have been as successful practicing their arguments in their dorm rooms or whenever they found some time to meet, or without the recording machine? Could Josh have been as successful preparing by himself?

Although it is possible to self-regulate behavior in all six of the areas discussed, not all students do so. A reasonable goal is to manage as much of one's thoughts and behavior as possible. In the example discussed, Josh and his friend believed they would be better prepared to make the debate team following their plan of action. If you were in the same situation, you may have approached the task differently.

Throughout this book, you will be asked to set goals and develop a plan of action to attain them. During this process, you will learn how to manage different aspects of your academic learning that will affect your level of success. Each chapter will provide examples of students' perceptions or beliefs about the learning strategies discussed in this textbook. These student reflections are from students who have taken a course in learning strategies. As you read each reflection, think about your own perceptions, beliefs, or behavior related to the topic or issue. The following reflection illustrates how learning to regulate one's academic behavior can also influence other aspects of one's life.

Student Reflections

I first thought that self-regulation was confined to academic learning. Now I see that it is also a great tool for life in general. As I learn more about self-regulation and practice the related skills, I find that I'm much more organized. Most important, I'm getting my work done instead of putting it off and procrastinating, as I have always done. As the class has progressed, it has affected my daily life. I'm starting to see that my life outside of school is starting to run more smoothly as well.

I was always an incredibly unorganized person. I would throw all my stuff (from mail, school work, even clothes) everywhere. I was always looking for things, losing things, and making a mess. Now I'm much more organized. I put things back when I'm finished with them, I keep my mail and outside school material in certain areas where I can find things, and my roommate is especially pleased, because I keep the room clean now. I'm also more prepared for whatever I have to do. I stick to schedules and plan for the events in my life. Basically, my life is more enjoyable! I'm happy now because of my continuing success at school, and this success has translated to my day-to-day life.

EXERCISE 1.1: SELF-OBSERVATION: ASSESSING YOUR SELF-REGULATORY SKILLS

Directions: Rate the extent to which you generally regulate the factors influencing your learning by checking Always, Sometimes, or Never in the corresponding box, and be prepared to offer a short explanation of your ratings. What areas are your strengths and weakness? Explain why you rated each dimension as you did.

	Always	**Sometimes**	**Never**
Motivation (e.g., "I can self-motivate when I need to.")			
Use of Time (e.g., "I plan how I use my time.")			
Methods of Learning (e.g., "I use different learning strategies for different types of assignments and tests.")			
Physical Environment (e.g., "I modify or change my study environment so I can concentrate.")			
Social Environment (e.g., "I seek help when I need it.")			
Monitoring Performance (e.g., "I monitor and evaluate my performance to determine my progress toward meeting personal and academic goals.")			

Comments:

HOW CAN I CHANGE MY BEHAVIOR?

Zimmerman et al. (2015) suggested a process that students can use to develop the self-regulatory skills necessary for academic success. Figure 1.1 presents the process visually. This process will help you develop control over the six components of motivation and behavior identified in the previous section. The following sections will review each of the four steps in the process.

STEP 1: SELF-OBSERVATION AND EVALUATION

Self-observation and evaluation occur when students judge their personal effectiveness, often from observations and recordings of prior performances and outcomes. One problem is that some students study and prepare for examinations in the same way that they did in high school. They have yet to realize the differences in the two academic environments. In high school, teachers take most of the responsibility for their students' level of comprehension. High school teachers actively monitor the degree to which content is understood:

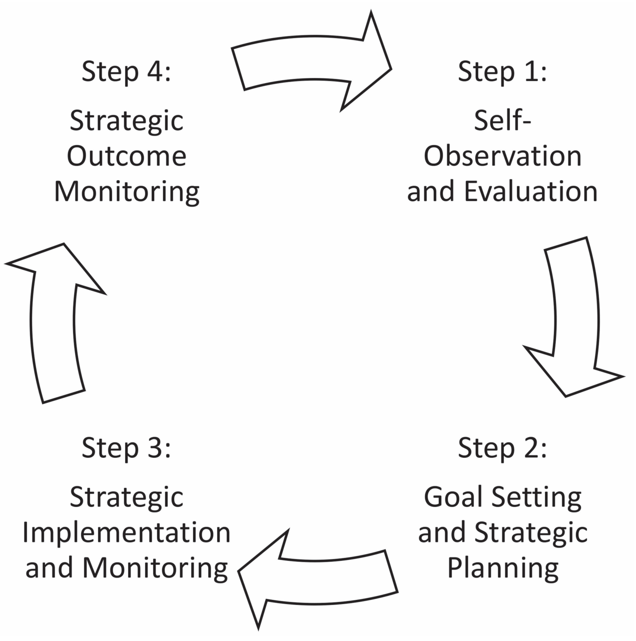
Step 4:
Strategic Outcome Monitoring
Step 1:
Self-Observation and Evaluation
Step 3:
Strategic Implementation and Monitoring
Step 2:
Goal Setting and Strategic Planning

FIGURE 1.1 A Process for Self-Regulating Academic Behavior