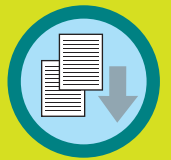


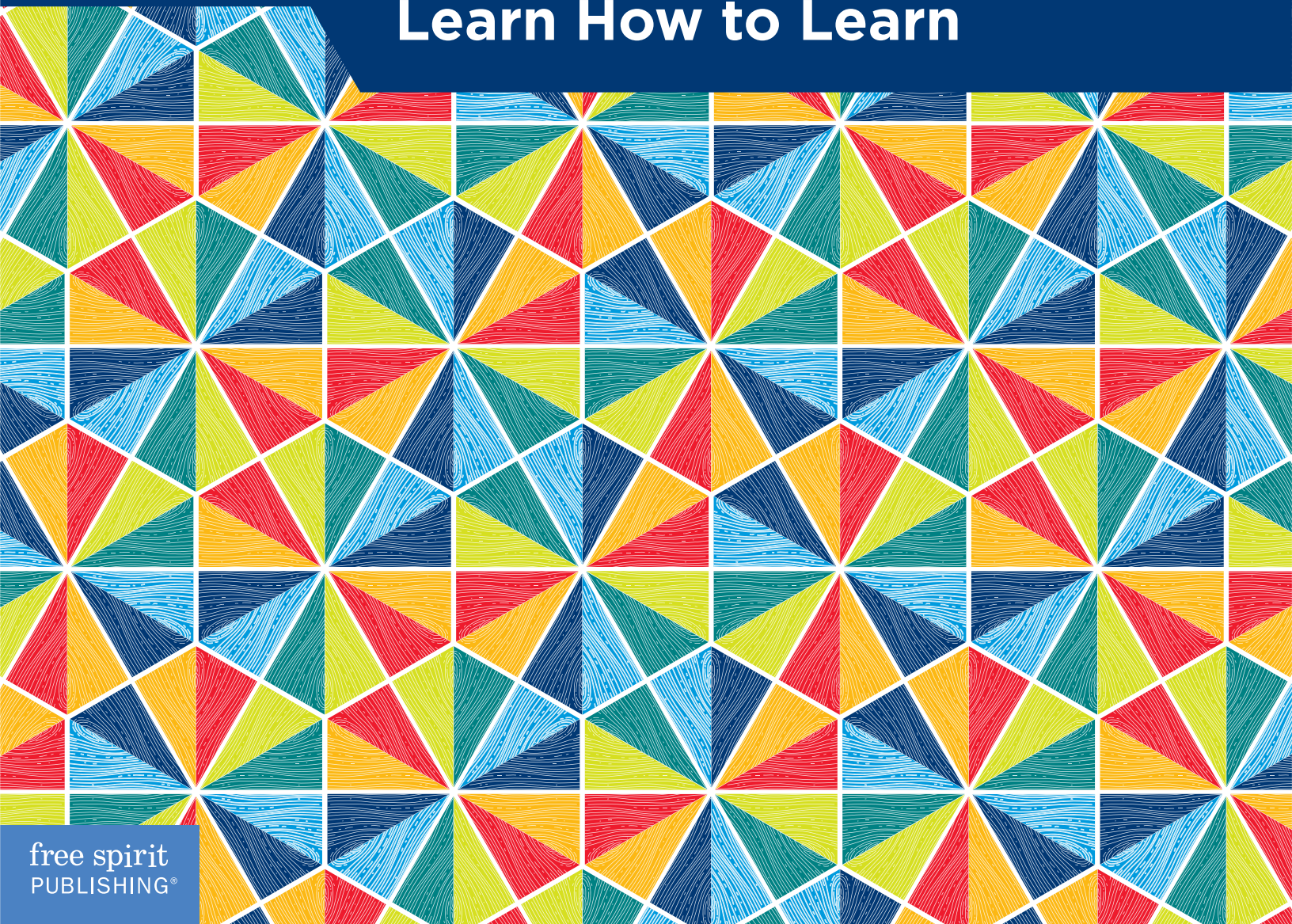
RICHARD M. CASH, Ed.D.

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# Self-Regulation in the Classroom

Helping Students  
Learn How to Learn



free spirit  
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## Dedication

To Craig Feltmann, for all your love and support in the development of this book.

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# Introduction

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*It's fine to celebrate success, but it's more important to heed the lessons of failure.*

—Bill Gates

Over the nearly three decades I've been a teacher, district administrator, and consultant, I've witnessed a steady change in how children prefer to learn. In my early years as a teacher, I could entice my students through stories, novelty, and interesting demonstrations. In those days, we competed with television and the first video games. Today, through my work with hundreds of teachers and thousands of students, I find the challenges of engaging children in learning have risen exponentially.

Not only are our students contending with hundreds of broadcast television channels, continuous on-demand media, hyper-sophisticated computer games, and “get-it-quick” information, but also they are in constant contact through social media and texting. These changes to our world have demanded changes in the way we teach. Teaching and learning in the second and third decade of the 21st century is no longer about stand-and-deliver methodology. We must realize that educators today are in a tough competition with the attention-grabbing forces our children encounter on a daily, moment-to-moment basis.

The most significant changes I've observed in the neo-millennials (children born post-2000) is their relentless need for stimulation and their shortened attention span. Advances in technology allow students to rapidly access information and contact others through virtual realities, resulting in their spending little time digging into text. Skimming and quickly picking out topics and ideas of interest to gain “just enough” knowledge from the Internet, they randomly overview text rather than following the linear

fashion of reading from upper left to lower right. This “in time” learning mode has had a significant effect on the way teachers must engage, educate, motivate, and support children of the 21st century.

## Self-Regulation for Learning: Not a New Idea

For over four decades, the topic of self-regulation has been studied in the field of psychology. Never before has this topic taken on greater significance than today in our classrooms. Popular media has propelled the topic through the use of words such as: grit, determination, stick-to-it-ness, mindset, drive, and self-control. Books such as *How Children Succeed* (Tough, 2012), *Mindset: The New Psychology of Success* (Dweck, 2006), *Drive: The Surprising Truth About What Motivates Us* (Pink, 2009), and *Talent Is Overrated* (Colvin, 2010) all make the point that what matters most in succeeding is the ability to avoid distractions, stay focused on tasks through completion, and develop a sense of autonomy in learning.

In his revealing book, *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement* (2009), John Hattie states that achievement increases when students can focus on learning rather than performing, set goals that stretch them, monitor their own learning, accept feedback as a guide to success, and calculate their accomplishments based on criteria rather than on comparison to others. Students who “possess high rather than low efficacy in learning, and effect self-regulation and personal control rather than learned helplessness” are far more likely to be successful in school and beyond.<sup>1</sup>

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<sup>1</sup> Hattie, J., 2009, p. 47

Using both popular texts as well as research tomes, such as *Motivation and Self-Regulated Learning: Theory, Research and Application* (Schunk & Zimmerman, 2012); *Handbook of Competence and Motivation* (Elliot & Dweck, 2005); and *Handbook of Self-Regulation: Research, Theory, and Applications* (Baumeister & Vohs, 2004), I've compiled a comprehensive look at self-regulation and its implications in the classroom.

*Self-Regulation in the Classroom* is written for educators to gain a deeper understanding of the theories behind self-regulation, to learn what it looks like in the classroom, and to discover how to foster students' development of autonomy in learning. The ideas, strategies, and processes in this book provide a framework for schools, administrators, and teachers to guide students toward greater levels of success and narrow achievement gaps.

The book addresses the learning needs of *all* students, from those who need more supports to the most advanced learners. The book includes ideas for assisting students who live in poverty to those who come from strong economic backgrounds. I truly believe that when students can self-regulate, they can and will achieve great things.

**Self-regulation for students who may not be reaching their potential.** Students living in chronic poverty or in difficult home situations often lack role models of effective self-regulation, which causes them to struggle in school or fail to reach their potential. This book provides ways to assist the neediest students by focusing on the modeling/observing level and then the purposeful practice level, which prepares them for future learning opportunities. Directly teaching and modeling the strategies of self-regulation can be highly beneficial for students who may not have had prior positive learning experiences.

**Self-regulation for advanced students.** My 25 years' experience of working with advanced students showed me the importance of teaching self-regulation for learning to students who easily met academic requirements. Many of these students find elementary school a breeze, with nothing too challenging to stretch their affect or cognition. By the time they reach middle school, classes may become more challenging and

complex, requiring them to call upon internal strengths to maintain high levels of achievement. This is the period in school when underachievement by advanced-level learners becomes a critical issue. Many of these underachieving students haven't learned when and how to use the skills of self-regulation to manage complex tasks. Some find their way to high school, prepared for even more complex study.

However, some advanced-level learners languish in their underachievement, mistakenly believing themselves to "not be gifted after all." My contention is these students have not learned how to use or rely upon their self-regulatory capacity when the going gets tough. Therefore, reinforcing the strategies of self-regulation with advanced-level students on a regular basis is critical to their success in secondary school, post-secondary opportunities, and beyond.

**Self-regulation for all students.** All students can value from learning and using self-regulatory strategies. As Bill Gates states at the beginning of the introduction, we learn best from learning how to deal with our failures. Many students fear failure, as if it defines them completely. Being able to reflect on failure as a learning opportunity, being resilient both emotionally as well as cognitively is a powerful tool in this ever-changing and complex world. Having an awareness of the concept of self-regulation and the ability to regulate affect, behavior, and cognition toward success is critical for all students.

## About This Book

The opening chapters of the book clarify the definition of self-regulation and how it applies in the learning context. For students to reach their potential they must possess traits that allow them to focus, avoid meaningless distractions, use the proper thinking tools, and maintain a confident attitude. Before we can guide students to success, they must achieve "self-regulation FOR learning" (SRL). SRL happens in four stages over a lifetime, sometimes moving forward and sometimes moving back, all in approach of learning autonomy.

Getting students to engage in tasks helps facilitate the development of self-regulation, so the book then presents four phases of engaging

in learning and a review of how we learn best. Based on neurological studies and learning research, there are specific requirements all students need and want when learning.

In the remaining chapters of the book, the four stages of developing self-regulation merge with the four phases of engaging in learning to provide practical, evidence-based practices that will support you in guiding your students to greater levels of autonomy in learning. The main goal of this book is to provide teachers with up-to-date research, solid theory, and doable practices to increase student achievement, thus narrowing the achievement gap. Additional goals include:

- › To clarify the theories that are foundational to SRL
- › To define how students engage in learning
- › To demonstrate ways to foster learner confidence
- › To offer ideas for developing greater capacities for thinking
- › To assist in goal formation
- › To keep students focused and on task
- › To develop lifelong scholars
- › To teach learners how to learn from learning
- › To put it all together as a doable district, school, or classroom plan

**Chapter 1** is an overview of the theories about SRL presented through the lenses of various experts in the field. For educators to implement effective practices, they need a solid foundation of the theories and the supportive research. The chapter defines self-regulation as a three-dimensional, learned process through which the teacher guides the learner to balance affect, behavior, and cognition (the ABCs of learning).

**Chapter 2** takes the reader through the process of developing SRL and spells out the four stages: originate, intervene, support, and release. Knowing how these stages are developed offers teachers a way to view students in a progressive manner, one in which the student's maturity, academic exosers, early parent/family modeling, and sustained growth are taken into account. Having a tone of progressiveness in

the classroom assures students they can achieve when they have had the models, supports, practice, and autonomy to reach their highest potential. Also included in this chapter are biographical sketches of students and analyses of how the development of self-regulation applies to their individual experiences.

**Chapter 3** offers assistance for learners in developing greater SRL through the context of engaging in a task. Research suggests that there is a cyclical pattern for engaging in learning (EiL). This chapter defines the four phases of EiL and broadly identifies actions within each phase. Additional comprehensive strategies are broken down into doable actions and activities in subsequent chapters (4–9). The chapter guides readers through the use of a cross matrix of the phases of EiL and the stages of developing SRL; it shows the actions teachers and students perform. The Cross Matrix is useful for teachers in planning lessons, differentiating learning tasks, and assessing student growth. Students can use it to monitor their development and to focus on the process toward success.

**Chapter 4** is a guide through the early stages of learning by building student confidence. Before learning can happen, students must feel confident in taking actions toward learning. This chapter identifies and provides supports in shaping students' confidence and emotional strength. A critical component in learning is knowing how a learner feels about the learning situation. Neuroscience research suggests that a learner's emotional state, or how one feels, has a significant effect on what he or she pays attention to in the learning space. This chapter also shares ideas for igniting students' interests and building value in learning. Useful ideas for moving students from pessimism to optimism, necessary for achieving SRL, are provided. Also included in this chapter are ideas for motivating students by developing their self-efficacy through a supportive learning environment.

**Chapter 5** provides ways to develop students' habits of thinking. It explains cognition—the multiple levels of thinking—and metacognition—the thinking about our own thinking, which includes how we view ourselves as learners

and how to approach dealing with problems. Additional ideas about the metacognitive process are given in Chapter 9. In this new century, it is more important that we teach students how to think rather than what to think. Stand-alone and content-infused strategies provide support for the development of thinking in your classroom.

**Chapter 6** is about setting goals. Goals are set within a hierarchy, moving from who we want to be (the ideal self) to those goals that balance the ABCs of learning, to learning and performance goals. Expanding on the SMART goal framework, the SMARTS/S goal framework includes self-regulatory aspects. Strategies for providing feedback to students about their development are included along with suggestions of apps to help incorporate technology in goal setting.

**Chapter 7** provides ways for students to manage the goals they have set. Today's students are perhaps more distractible than ever before. Teachers and parents need tools to assist students in "paying attention" and avoiding distraction. This chapter will provide numerous ideas, strategies, and techniques for assisting students in managing goals both inside and outside the classroom. Other topics in this chapter cover how to manage time, keep organized, manage stress, and overcome the self-imposed feelings of boredom through creativity.

**Chapter 8** offers ideas for shifting from the practice of homework to the essential tool of home study. Few topics in education cause as much consternation as homework. Although little research or evidence supports homework, children must learn how to study outside of the classroom. This chapter shows how teachers can maintain a productive learning environment that nurtures study habits and study skills. It provides useful ideas and tips for parents and others to encourage study outside the classroom.

**Chapter 9** focuses on the critical nature of reflection and relaxation in learning. People learn more from reflecting on an experience than from the experience itself. This chapter provides various formats for the reflection process. Students who are over-scheduled have high stress levels, so I have included ideas for teachers and parents

to help children de-stress through relaxation techniques.

**Chapter 10** puts it all together! This chapter offers a framework for classroom practice that can be expanded upon for school-wide implementation. Included are ways to assess the development of self-regulation and a way for students to identify how they like to learn and stretch themselves to become autonomous learners.

Lastly, all of the reproducible forms (and some of the Figures) in the book exist in digital form as customizable PDFs for your personal use and sharing. See page xi for the website link to download these forms.

## How to Use This Book

Using this book as a foundation of self-regulation and engagement in learning can assist you in developing autonomous self-directed learners. Read Chapters 1–3 to familiarize yourself with the theory and research on self-regulation and engaging in learning. From there, depending on the level of your students' self-regulation development, you may choose individual chapters to address critical needs. For example, if you are working with students who chronically underperform, you could read Chapter 4 on fostering student confidence. If you are working with more advanced students, you could head to Chapter 6 on goal setting.

Whether you are a classroom teacher or a building- or district-level administrator, this book will be a valuable resource. What's more, *Self-Regulation in the Classroom* can also be used by your professional learning team or as a book study with your staff. To that end, I've created a guide with questions and activities for each of the chapters for PLC or book study teams. You can download this free guide at [frespirit.com/PLC](http://frespirit.com/PLC).

Finally, I'd love to hear how this book has helped you in your classroom. If you have stories or questions for me, you can reach me through my publisher at [help4kids@frespirit.com](mailto:help4kids@frespirit.com) or visit my website [www.nrich.consulting](http://www.nrich.consulting).

**Richard M. Cash, Ed.D.**

## CHAPTER 1

# Self-Regulated Learning for 21st Century Students

*If we give our children sound self-love, they will be able to deal with whatever life puts before them.*

—bell hooks

However direct or convoluted the route you took to reach your present role as an educator, imagine how different that journey would have been with endless streams of texts, emails, and captivating YouTube videos vying for your attention. Not to mention having the option to stop along the way to take smartphone photos, post updates to your Facebook page, and check your friends' Twitter feeds. The sheer amount of information and the easy access to it that our children have present educators with a problem previous generations didn't have. Although teachers always have had to work to get students' attention and engage them in lessons, the competition for their mental energy has never been greater.

Responding to a continuous overload of information keeps learners distracted, and gathering information in random ways may not be the most effective way to foster deep thinking. When students focus their attention, they can move information from working memory to long-term memory, which assists in the development of conceptual thinking, creativity, and critical reasoning. To use the full potential of their minds, students must learn to filter distractions and interruptions and to think deeply and critically.

Likewise, some children live with the ready availability of such things as money and food whenever the impulse strikes for short-term satisfaction. A large number of our students are

caught in the clutches of "instant gratification." The famous Marshmallow Study conducted at Stanford in 1972 by Walter Mischel showed how important self-regulation is to achieving success in life. *Self-regulation* (also known as self-control or self-discipline) is the control of conduct based on goals an individual has set for himself or herself.<sup>1</sup> Mischel offered four-year-olds a marshmallow but told them that if they waited for him to return from running an errand, he would give them two. The children had a range of success in delaying gratification. After about 13 years, Mischel found that children who are able to wait for a marshmallow reward (delay gratification) through various affective, behavioral, and cognitive methods perform better in life. Those who waited for the marshmallows were more self-reliant and confident, more motivated when working on projects, more academically successful, better at concentration and planning, more eager to learn, and still able to delay gratification. These are the characteristics of self-regulation. Those who ate the one marshmallow were more easily upset by frustrations, were more likely to negatively respond to stress, scored 210 points lower on their SATs, and were still unable to delay gratification.<sup>2</sup>

In his 2011 book *The Shallows: What the Internet Is Doing to Our Brains*, Nicholas Carr writes that early peoples were more likely to survive and carry on the gene pool if they were able to shift their attention quickly to

1. English and English, 1958.

2. Mischel et al., 1988.

understand their environment. Later, when print became a popular medium for the accumulation of knowledge, we learned to focus for longer periods of time. And today, we skim and scan the Internet, taking us back to quickly evaluating the environment and long periods of distraction. Historically, Americans have prided themselves on a national character comprised of independence, resourcefulness, persistence, inventiveness, determination, and dependability. No matter how high- or low-born, success was a viable goal for those willing to persist. Now, the United States leads the world in percentage of students who drop out of college. So, in light of the information overload and easy access to short-term gratification in today's world, how do we instill in our students the need for purposeful learning, persistence, self-control, and a healthy regard for failures as learning opportunities?

This chapter will show the importance of self-regulation for learning (SRL) in helping your students attain their academic goals. SRL will help learners develop resilience and autonomy, learn to reflect on experiences, and consider multiple ways to solve complex, ambiguous problems. Using the books' SRL strategies model, students learn to balance their feelings, behavior, and cognition. As they coordinate these three foundations of SRL, they find greater motivation and enjoyment in learning.

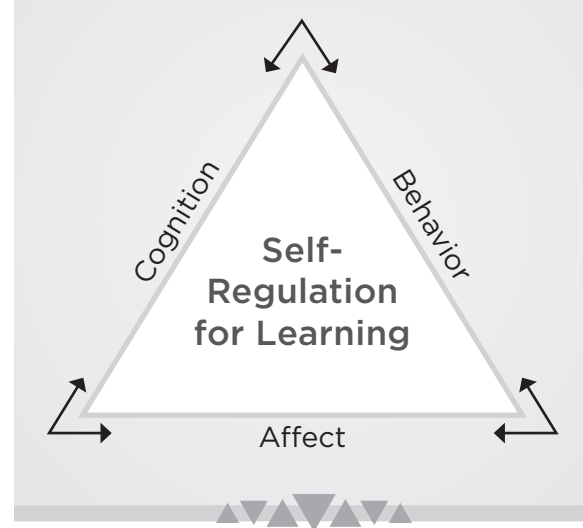
Mastering the skills of self-regulation involves the traits and dispositions shown in Figure 1.1.

## A Model of Self-Regulation for Learning

A topic of interest to social scientists for several decades, “*Self-regulated learning* (or *self-regulation*) refers to the process by which learners personally activate and sustain affects, behaviors, and cognitions that are systematically oriented toward the attainment of learning goals.”<sup>3</sup> SRL is a process in which the learner manages and controls his or her capacities of affect (feelings), behavior, and cognition (thinking)—the ABCs—to engage in learning, and improve achievement and performance. Figure 1.2 shows how the three dimensions are interrelated.

In reality, the three dimensions of SRL are tightly interwoven and, in successful learners, work in tandem. One without the other two or two without the other one create an imbalance in the learning process. For example, if you feel estranged in a situation (perhaps at a party where no one else looks like you, speaks like you, or comes from a similar background), you might spend the majority of your time thinking about how different you are and might behave in a reserved manner, not meeting as many new people as possible. This is an example of how one dimension (feelings) can derail the other two

Figure 1.2 Self-Regulation for Learning Model



(cognition and behavior) to be less productive. Following, the three dimensions are defined as separate but intertwined entities.

## A Is for Affect

How a learner feels about a situation determines the focus of his or her attention, drive, and motivations. Affect is defined as how we feel, or our conscious awareness of our emotions. Emotions are a chemical reaction within our limbic system (the primitive midbrain area that controls emotion and memory) triggered by internal and external stimuli.

Emotional responses (feelings) develop in this basic manner:

- 1. Interaction** with an event, environment, object, sensation, or thought
- 2. Attention** to the interaction either consciously or unconsciously
- 3. Interpretation** of the attention given to the interaction based on prior experience or on another person's reaction
- 4. Reaction** (instinctual or conditioned) to the interpretation

*Example 1:* A toddler learning to walk lets go of mom's hand and falls to the ground (interaction). The child's first reaction is of mild pain from the fall (attention). The toddler may not scream in

pain because the fall was not serious. However, if mom's reaction (interpretation) is one of fear and she screams, the child then interprets the fall to be more than a mild pain and begins to cry out in fear mirroring mom's response (reaction).

*Example 2:* A new student enters the classroom (interaction). The teacher and other students warmly welcome her to the class (attention). The new student feels a sense of belonging (interpretation). She is more likely to open up, be willing to take intellectual risks, ask for help, and feel accomplished throughout her time in the class (reaction).

How we regulate or manage our emotional responses has a significant effect on our learning. Researchers have found that when people consciously use positive behaviors (such as going for a walk or bike ride) and positive cognition (such as reflecting on how to improve a situation) rather than focusing on negative effects, they are able to overcome negative feelings more rapidly.<sup>4</sup>

Additionally, studies suggest that there are physiological changes in our brains when we feel good, causing us to think more clearly and effectively.<sup>5</sup> Negative feelings can actually have a negative effect on our thinking process. These research studies inform us that when we focus students' attention toward a consciousness of their feelings and provide them with specific behavioral and cognitive strategies to adjust those feelings, they are more likely to achieve success.

For example, Mateo, an average fourth grader, tried to learn to convert fractions to decimals. His group partners all learned the process quickly. The comments they made as they tried to help him (“Why can't you get this?” and “You're so slow”) made him feel bad about his abilities. His teacher, Mr. Anderson, met with Mateo to help him and quickly perceived his feelings. Instead of focusing Mateo on practice drills, he sent him on a walk to the water fountain (physical behavior) and told him during the walk to think about something other than math, such as how his soccer game went or what he planned to do after school. When Mateo returned to class, he had overcome his negative feelings and, with encouragement from his teacher, set to work

Figure 1.1 Traits and Dispositions of Self-Regulated Learners

### Self-regulated learners . . .

- › Take responsibility for learning.
- › Maintain engagement in learning.
- › Welcome challenges.
- › Learn from intrinsic motivation.
- › Are performance-oriented.
- › Set challenging goals.
- › Monitor and assess the goal process.
- › Utilize a repertoire of learning strategies.
- › Modify or adapt learning strategies.
- › Expend effort.
- › Establish a productive home learning environment.
- › Seek help when necessary.
- › Are persistent and determined.
- › Find personal value, relevance, and interest in learning.
- › Find satisfaction in learning.
- › Use failure as a learning tool.
- › Use effective study habits.
- › Make choices in learning based on personal interests or preferred ways of learning.

3. Schunk and Zimmerman, 2012.

4. Dillon and LaBar, 2005.

5. Hidi and Ainley in Schunk and Zimmerman, 2008.



again, understanding the process more quickly than before and ready to continue positively to learn new math processes.

## B Is for Behavior

For purposes of this text, behavior is defined as the actions we perform that are initiated, sustained, changed, or developed based on both internal and external factors. Behaviors can be both conscious and unconscious. For students, having a solid grasp on what to do and a positive belief in their ability to do it can powerfully impact their attainment of goals. Learning certain behaviors that are more effective than others and then repeating those behaviors will create what is known as habits of learning.

### Academic Behaviors

Academic behaviors typically are those that are useful in school and career success. The behaviors can be categorized into five interactive categories:

- 1. Determination:** the level of commitment one puts toward initiating, sustaining, and achieving a desired outcome. Student behaviors include using self-talk, seeking help, attending to details, and overcoming obstacles.
- 2. Interest:** the personal attention or curiosity one uses to engage in school, others, and goal attainment. Academic behaviors include driving to learn more about a topic, making connections to material or others, and redirecting one's attention when distractions occur.
- 3. Work habits:** the strategies and techniques one uses to learn new information. Student behaviors related to work habits include setting time limits on studying, using organization strategies, and planning and monitoring goals.
- 4. Communication and collaboration skills:** the effectiveness one has with others to achieve a common outcome. Student behaviors include speaking and listening strategies, cooperation and negotiation, as well as ethical use of technology.

- 5. Goal focus:** the process one goes through to set, manage, and achieve a realistic goal. Student behaviors include knowing strengths/limitations, controlling impulses, and using reflective practices.

As students develop and practice the behaviors, eventually they become habitual. Chapters 4 and 6 will provide more specific strategies for the behavioral dimension of self-regulation. Meanwhile, the following figure details the four phases of behavioral change.

### Four Phases of Behavior Change

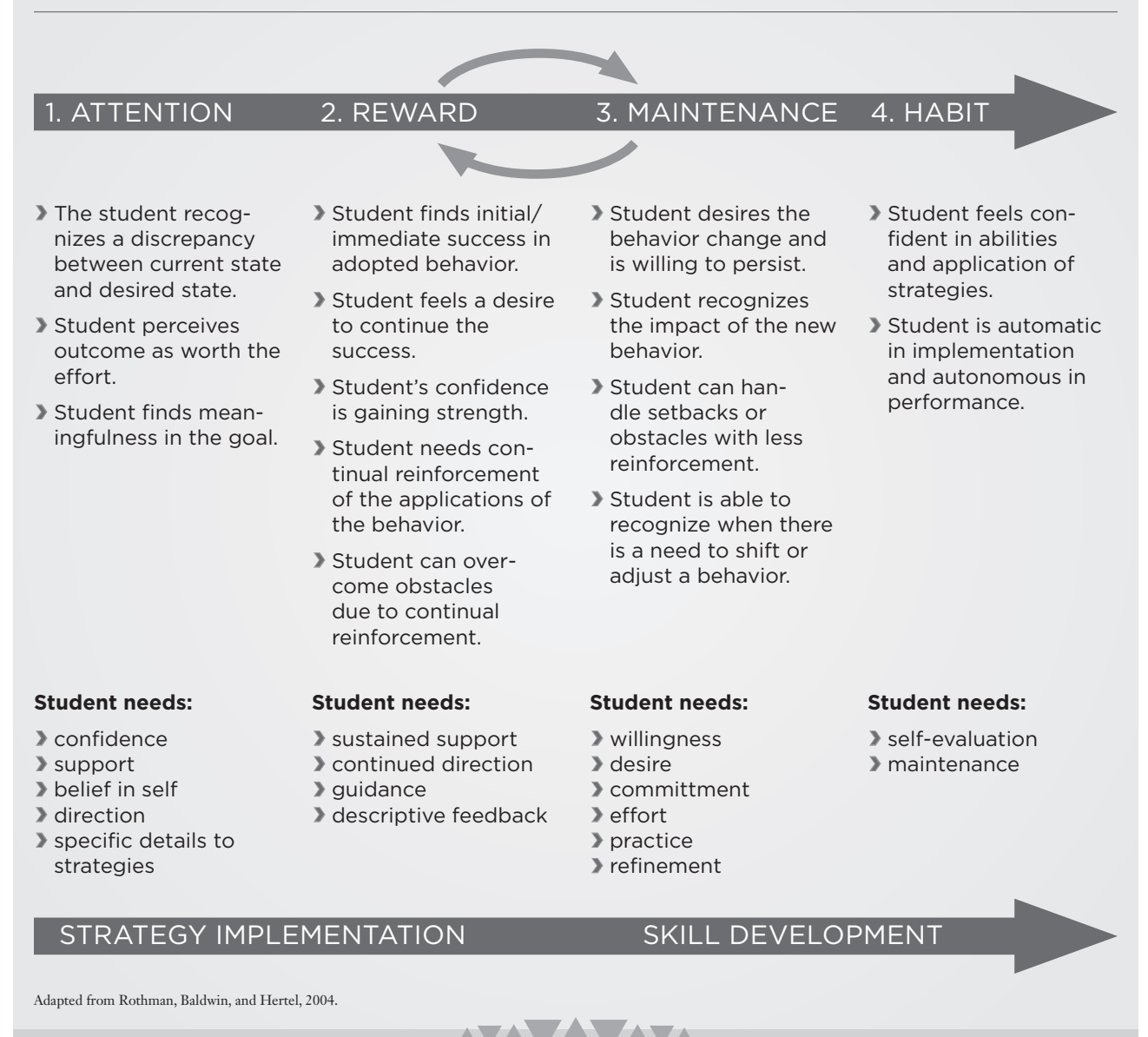
Based on research of how people modify their behaviors to become habitual, Figure 1.3 shows the process and how to apply it in the classroom. The arrows at the bottom of the graphic show that as learners progress through the strategies and phases and the behavior becomes habitual, they are developing skills.

#### PHASE 1: ATTENTION

When the student recognizes a need for a change in behavior, he or she starts the change process. In some cases, students are not aware that their behaviors are unproductive, inefficient, or unaligned with success. To help students become aware of the need for a behavior change, help them find value in their efforts to achieve the goal or find meaningfulness in the tasks. Meaningfulness is when the students recognize that the task or strategy has an immediate application and completing it can lead to a positive feeling. Help your students find relevance in the need for a change of behavior by encouraging and building their self-beliefs.

At this phase and the next, ensure students know the difference between a strategy implementation and skill development. A strategy is a discrete, conscious action, whereas a skill is automatically using a set of strategies to accomplish a specific task. In other words, strategies are small and skills are big. Strategies are effortful, while skills are effortless. Students who are aware of the strategies that develop into skills know that being able to face greater challenges requires expending much effort upfront. Being able to articulate specific steps in solving problems is most critical

Figure 1.3 Four Phases of Behavior Change



as students enter middle school and high school when situations become more complex.

*Strategy example: working backward*  
*Skill being developed: problem solving*

*Strategy example: using pictures to understand the story*

*Skill being developed: comprehension*

Students must build their confidence to perform the tasks required of them. Therefore, at this phase students will need support in building their self-beliefs and self-efficacy toward doing well. They will also need direct instruction on

the specifics of the strategies and how to apply them. Students who struggle or are less self-directed will need more hands-on experience with the strategies, concrete representations of the outcomes, and step-by-step implementation tools.

#### PHASE 2: REWARD

This phase of the change process offers immediate rewards for performing the behavior. When implementing a new behavior, it is critical for the student to see or feel instant gratification. Even though we are trying to change this need