

## Chapter 1

# The Case for Self-Directed Learning

**NOTHING** is so natural to us as learning and accomplishment. We hunger for it from our first breath. We enter school already skilled in it and eager for more. We pursue it, often with passion, for the rest of our lives. The need to survive, become competent, find intimacy, and sustain self-esteem presses us forward on all life fronts. We search for a role and work of significance; for companionship, partner, and family; for understanding each other and ourselves; for mastery over something and for fulfillment. Our species is irrepressibly curious and restless; we question everything and seek answers; we see a need or possibility and press forward to see if we can make it real. The drive to learn can be suppressed—we can be deprived, beaten, and drugged—but these are only frictions to the unstoppable learning momentum that has propelled our species from its prehistoric beginnings to its current civilized state.

Self-directed learning (SDL) is designed to nurture this momentum, to broaden and deepen it, to help students channel and refine it. This design has been enhanced by a flood of recent discoveries about the brain. We have found that the brain is a meaning-making machine that thrives in rich environments, seeks out patterns, builds on previous experiences, and functions best in nonthreatening situations. Not only is the brain a dynamic, self-directing instrument of learning, it is highly individualized as well. Recent studies of intelligence, learning style, and talent or strengths affirm the great diversity in the ways people learn. Cognitive psychology has also focused on the importance of learning how to learn, that is, on developing the strategies that can be applied to any learning task. Such portable skills prepare any learner for the ultimate challenge of lifelong learning.

This attention to learning for life reminds us, as we address adolescent students in middle and high school, that we are dealing with a whole life—

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not just intellect but emotions and performance as well. And it reminds us that adolescence is a life between childhood and adulthood. Major tasks in this chaotic teenage period include development in personality, character, and talent as well as in academics. The challenge of the transition is to leave childhood behind and to stand on the threshold of adulthood with purpose and confidence. This means maturing as a person, finding a social place, becoming independent, and finding a focus for work. The key to such readiness for students is self-efficacy, that feeling of certainty, forged in action, that they can set a course and then make the journey.

The journey into adulthood—into the world—has seldom been more challenging. Globalization is rapidly expanding the economic field of play. Change is dramatically shifting the nature of life and work. Knowledge is doubling every few years. Technology is transforming the way we live and the way we work. Work itself is transformed from the well-protected life-long job to the precarious short-term performance contract. Individuals will not be looked after from the cradle to the grave; increasingly, they must look after themselves. Students must know how to learn every day, how to adapt to rapidly shifting circumstances, and how to take independent initiative when opportunity disappears. SDL prepares students for this new world in which the active learner survives best.

### **What Is Self-Directed Learning?**

SDL is any increase in knowledge, skill, accomplishment, or personal development that an individual selects and brings about by his or her own efforts using any method in any circumstances at any time. A student, for example, decides to build and launch rockets that will rise one mile into the atmosphere. He inspires others to join him. They go on the Internet, contact the National Aeronautics and Space Administration, consult with a science teacher, find a machine shop, build experimental models, and, after many attempts, succeed.

Teacher-directed learning (TDL) by contrast is any increase in a student's knowledge or skill brought about by initiatives taken by a teacher, which includes a selection of the learning to be accomplished, presentations about it, assigned study and practice activities, and a test to measure mastery. A teacher, for example, selects the topic of propulsion, presents lessons to all students showing the physics involved, assigns readings and questions about it in a textbook, conducts demonstrations with assembled rockets, and then tests students about their mastery of the principles.

Both are important approaches to learning. TDL is important because it is an efficient way to present new bodies of knowledge and practice. SDL

is important because it enables students to customize their approach to learning tasks, combines the development of skill with the development of character, and prepares them for learning throughout their lives.

SDL is dramatically different from TDL. It requires a different approach by the teacher and demands new skills from students. In SDL, students gradually take over most of the teaching operations that are traditional in TDL until they are designing as well as executing their own learning activities. The teacher's role is transformed and becomes even more important and more demanding. Teaching SDL requires a full professional repertoire of instruction, including training, coaching, guiding, and counseling skills. It represents a paradigm shift in thinking about teaching and learning (see Table 1.1).

The choice, of course, is not simply between teacher-controlled and student-controlled learning. There are many stages between these two poles. Students can be taught to think for themselves, work at their own pace, learn in their own way, choose their own goals, and design their own programs. Each of these is a step toward SDL, and each can be the focus of a teacher's program. How far across this bridge any teacher decides to travel will be determined in part by individual judgment and the circumstances in which he or she works. This book is a challenge to teachers to challenge themselves to go as far as they can in this effort. Fortunately, as we will see, there are excellent schools to model each of these stages of SDL.

In TDL, we teach students about the nature of flight; in SDL, we teach students how to fly. When students learn to fly, they "earn their wings."

**TABLE 1.1**

**Shifts in Thinking About Teaching and Learning**

<b>In teacher-directed learning, the teacher:</b>	<b>In student-directed learning, the teacher:</b>
Decides the course goals and the content to be studied	Teaches students to set their own goals and eventually choose what they will study
Presents course content to students in lessons	Teaches students the skills and processes involved in setting goals, making plans, and initiating action
Sets exercises and assignments for study	Negotiates student proposals for learning and acting
Monitors completion and assesses accuracy of student work	Guides students through self-directed challenge activities
Tests and grades student performance	Reviews students' assessment of their work

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They study in the classroom, work on simulations, and practice in the air with a flight instructor until they have the knowledge and skill to fly solo. When they prove that they can make skillful flights on their own, they can fly anywhere they choose. Teaching SDL is about teaching the skills and providing the experience that students need to guide their own learning lives. It is teaching them what they need in order to solo safely and successfully in life. SDL teachers, like flight instructors, succeed when their students no longer need them.

SDL not only encourages teachers to help students to find a passion; it requires it. In SDL, teachers not only challenge students to excel; they challenge students to challenge themselves to go as far as possible beyond the easy and familiar. SDL ends not in exercises but in action, and action as often as possible in the world beyond the classroom. Teachers do not direct students so much as they teach them to direct themselves by empowering them. SDL students work closely with other students and adults, not just independently. They are charged to learn academics, but are challenged with much more as well.

This approach equips the teacher with the means to inspire a wide range of students to learn. The program, as we will see in Chapter Seven, is designed around motivational principles: it cultivates students' interests, applies their strengths, and equips them for success. Such features enable the teacher to adapt the program to every student. The teacher is each student's partner in becoming proficient. Mark, for instance, was a problem student who had moved to several other schools before he entered an SDL program. As he put it,

*I'm just grateful to be here. I was going nowhere at my other schools. Look at me! I'm too big to be bossed around like a little kid. Then I get here and they treat you with respect. I get a part in a little theater thing about Galileo at the museum, talk to the lab guys there, and here I am doing a science project on solar emissions.*

The teacher's task is to help students like Mark to find their passion and then to challenge them to pursue it. Eileen was not aggressive but passive, so passive it became resistance:

*I can't believe it. I had teachers lecturing me all the time to get to work. Then I get into this classroom, and she tells me to challenge myself. Now she's got me telling myself to do stuff I don't even think I can do.*

In SDL all students can find a pathway to progress and receive recognition for it.

For bright and talented students, such programs often provide an opportunity to run free, move fast, and go far. Meguido, a student in a challenging SDL program, viewed coming to this class as a relief: “No more dragging along as slow as the slowest guy. You can just go for it.” SDL also offers equal opportunity for students who, in regular TDL situations, have always been ranked against the brightest and considered relative failures. Such ranking and its diminishing message are deadly educational medicine.

Every SDL teacher is committed to the success of all students—to the discovery and development of strengths and to measuring personal progress, not rank. Such features enable teachers to engage both students who are proficient and students who are struggling. Tough, streetwise Jeremy finds success learning to fly an airplane. Bottom-of-the-class dweller Maria discovers that she can draw. While developing these interests and gaining recognition for their success, such students learn that they can accomplish, and as a result, their other efforts also improve.

SDL teachers enjoy a number of advantages when working with students of all kinds. As students learn how to learn, or how to teach themselves, they often work individually and independently. This enables the teacher to meet with individuals and small groups regularly for the special attention and guidance that are so important to this process. But teaching SDL is demanding. It means teaching students all they need to know in order to learn a course on their own and devise their own studies. Fortunately, every teacher is already using several SDL approaches (see Resource A at the end of this book) that provide a solid foundation on which to build a full program.

In the future, technology will replace teachers whose major role is to present content. That is already happening as a result of open learning institutes, cyberschools, and on-line high school courses. As Gary Phillips, director of the National School Improvement Project, says, “Anyone who can be replaced by a computer should be” (personal communication to the author). The teacher who teaches students how to learn, guides them through the struggles of adolescence, and challenges them to challenge themselves to excel will always be irreplaceable. The secret of SDL is education that goes deeper. As one teacher said whose students have to complete a series of SDL challenge projects, known as passages, to graduate, “I like the adventure passage best because the journey leads students to the adventure of self-discovery, and that is the greatest discovery of all.” Students can direct their learning only when they begin to know themselves and the direction they want their lives to take.

The rewards for SDL teachers are great. Not the least of the pleasures is to hear students presenting at the end of their program describe the drama of taking charge of their own learning. Their pride in prevailing during their struggles to accomplish their goals can be overwhelming. Once teachers are touched, the experience becomes a necessity. As this teacher from Jefferson County Open School in Lakewood, Colorado, said,

*We want our kids to identify their passion and to pursue it with discipline. Once they care, they can't be stopped, and they can recreate what they accomplish again and again, growing stronger every time. That's why I can't pour information into empty tubes again. Once you've been close to the fire, you can't live without it any more.*

## How Does Research Support SDL?

Recent research on teaching is usually interpreted as guidelines for improving how to teach students the curriculum. Teachers are urged to apply the research on learning styles, for example, by designing their lessons to accommodate the different ways—visual, auditory, tactile, and kinesthetic—by which students most readily comprehend and apply what they are taught. When brain research shows that people learn better when new concepts are tied to what students already know, teachers are encouraged to connect the lesson to students' past experience and to begin with their current state of knowledge about the subjects they are teaching. Such responses are commendable and promising for TDL. With a shift in perspective, however, we can also see, in these and many other findings, the outline of another paradigm in which students exercise their individual learning styles in creating their own meaning. That paradigm is SDL. We can flesh out that paradigm with other research and the developments based on it.

The work on multiple intelligences, diverse learning styles, and the psychology of the individual is applied in various approaches to teaching designed to accommodate those differences in direct instruction. This involves teaching to the intelligences and learning styles and individualizing instruction. From another point of view, however, we can affirm that each child is unique, with a unique set of talents, a unique body of experience, and a unique perspective on the world. Students learn best in unique ways that maximize their personal resources. It seems reasonable to conclude that students will learn best by coherently extending their experience in their own emerging style that takes full advantage of their individual strengths.

The basic concept of metacognition is that we think about our thoughts: we think about what we know, what we are doing, and what we are thinking. As Hacker, Dunlosky, and Graesser (1998) say, the promise of metacognitive theory is that it focuses “on those characteristics of thinking that can contribute to students’ awareness and understanding of being self-regulatory organisms, that is of being agents of their own thinking” (p. 20). One of the ways this theory has been applied is to teach students to self-regulate their learning and study practices in TDL classrooms (Zimmerman, Bonner, and Kovach, 1996). From another perspective, metacognition is the key to SDL. Students learn to think for themselves, make plans, and take action. They think about their thoughts in order to make good decisions and about their decisions to ensure successful action. They think about the process they will follow, solutions to problems that arise, and ways to improve their performance. SDL is built on metacognitive competencies.

The application of neurological research in brain-compatible teaching emphasizes that the brain seeks patterns and meaning, requires stimulating experiences and environments, learns best with active involvement in the activity at hand and active involvement with others, and responds poorly under threat. These are often translated into better TDL practices that seem to work well to enhance learning (Neve, Hart, and Thomas, 1988). Teachers can trace out patterns in history, the sciences, and the arts, but how much more powerful it is to teach students to find the patterns themselves, and then to analyze the patterns they discover and draw conclusions from them. In SDL, learning leads to action and involves students in both helping each other and working together to learn. Teachers seek the success of all students without threatening competition that generates many losers. SDL is very brain compatible.

Developmental psychology reminds us that there is another curriculum of fundamental interest to the student but not a high priority in most TDL school programs: the curriculum of personal growth and maturation, that is, the curriculum of personal transformation and transition. In this psychosocial curriculum that students cannot avoid, the central task is to establish a healthy personality and unique identity, that is, a coherent sense of oneself that others confirm (Erikson, 1959). This sense of self is nurtured by accomplishment and acknowledged competence. At the same time, adolescents are making the transition from childhood toward adulthood, which requires them to become more independent, responsible, competent, and hopeful. Making these transformations and transitions is a challenging task, and a successful outcome is not guaranteed. Success requires the development of values and character. Educational programs,

including courses, should be compatible with and contribute to students' successful achievement of this transformation and transition. SDL activities, especially challenges and passages—extended projects often conducted in the field—are designed to guide and support students through their struggles to complete the tasks of personal transformation and to equip them for the rigors of the transition from childhood to young adulthood.

Constructivist theory (Kelly, 1955) claims that building meaning is our basic role and that we should build meaning by conducting scientific-like investigations regularly to gather evidence on which to base the concepts we hold. We should do more than construct meaning; we should also reconstruct concepts and theories that are no longer satisfactory. We can teach students the ideas we want them to adopt, or we can teach them to create meaning for themselves. Philip Candy, in his excellent book on SDL (1991), concludes that teaching students to make their own meaning is the main task of self-directed learning. Teaching students to think for themselves, to think systematically, to draw their own conclusions, and to construct their own perspective on their lives and the world are the basic purposes of SDL.

Marilee Sprenger (1999, p. 14) concludes that “humans are social creatures and learning is a social activity.” But how valuable is group work as a method of learning? Johnson and Johnson (1991) answer the question succinctly:

*There is a great deal of research indicating that, if student-student interdependence is structured carefully and appropriately, students will achieve at a higher level, use higher level reasoning strategies more frequently, have higher levels of achievement motivation, be more intrinsically motivated, develop more positive interpersonal relationships with each other, value the subject area being studied more, have higher self-esteem, and be more skilled interpersonally. [p. 17]*

But, as Johnson and Johnson (1991) warn, these benefits cannot be enjoyed by simply grouping students. The essentials of cooperative learning must be in place. Teachers have to teach students positive interdependence, face-to-face promotive interaction, individual accountability, cooperative skill, and group processing. These are essential guidelines for both teachers and students of SDL. Life is a social activity, successful action often involves teamwork and social savvy, individuals need interaction to learn about themselves, and group work is often the doorway to success in SDL. As Lev Vygotsky said, “What students can do together today they can do alone tomorrow” (Johnson and Johnson, 1991, p. 57).

William James once wrote, “If you care enough about a result you will almost certainly attain it.” In his thorough book *Motivating Humans* (1992), Martin E. Ford states that in terms of motivation, “research shows that little else matters if there is no relevant goal in place” (p. 220). The potency of the goal to inspire behavior is influenced by personal agency beliefs, which encompass capability beliefs (Can I do it?), context beliefs (Will this activity be supported by a responsive environment?) and the strength and nature of the emotions related to the goal. Ford states that “goals lose their potency in the absence of clear and informative feedback” (p. 220). And he advises that challenging but attainable goals are motivating, especially when they are associated with several desirable outcomes. Flexible standards and rules protect people from demotivation and encourage them to undertake improvements. These simple principles from his motivational system make an excellent outline of the principles of SDL and offer a pattern of practices that can be taught to students as a guide to motivating themselves.

Robert Sternberg in *Successful Intelligence* (1997) describes characteristics of successful people based on his research into analytical, creative, and practical intelligence. The characteristics are also major themes of SDL. Successfully intelligent people, he says, generate good ideas and translate them into action, think in terms of processes leading to productivity, and motivate themselves to action. Successfully intelligent people are highly self-directed.

When we examine these examples of trends in research from another perspective, we see in them not confirmation of traditional TDL, but the structural beams of another paradigm, and that paradigm is SDL.

## The Major Principles of an SDL Program

SDL programs rest on five principles:

1. *Programs should be congruent with a life of learning, the natural ways we learn, and the unique methods by which each of us learns best.* The basic assumption of SDL is that from birth to death, we live lives of learning: we first learn to function, then to live well, and finally to make a difference. Learning is a natural process outlined by both the history of our species and our history as individuals. Our success depends on the range, depth, and quality of the learning we achieve. Each of us exhibits and develops these natural capacities in an individual way according to the talents we are endowed with, the experiences we encounter, the strengths we discover, the interests that begin to direct and motivate us, and the patterns of

learning that we develop. An SDL program should be congruent with these lifelong, natural, and individual learning drives.

2. *Programs should be adapted to the maturation, transformations, and transitions that adolescent students experience.* Adolescents experience rapid physical, cerebral, and hormonal change that is often destabilizing. Among the transformations or passages that they must address, the most important is establishing and confirming a personal, stable identity. Key features of this formation are the development of reflection, character, and competence. The major transition they face is from dependent childhood to independent early adulthood in which they must secure new freedoms and meet the responsibilities that go with them. SDL programs are designed to cultivate the successful accomplishment of these changes in the pursuit of excellence as a person.

3. *Programs should be concerned with all aspects of a full life.* Academic studies are important and included in an SDL program, but so also are the personal, social, and technical domains of human experience. The personal domain focuses on the cultivation of the individual's talents, values, and interests. The social domain is concerned with the individual's ability to relate to others, to learn from them, and to work with them. In the technical domain, emphasis is placed on competence, performance, and productivity. In SDL, focus on these domains is as important as focus on academics, in part for their contribution to academic success but in the main because they are the foundation for a successful life of learning.

4. *Learning in SDL programs should employ a full range of human capacities, including our senses, emotions, and actions as well as our intellects.* SDL is grounded in direct experience. Experience is absorbed by finely honed senses. The mind reflects, investigates, and plans. Feelings stir, drive, and direct our thoughts and efforts. But our senses, feelings, and thoughts all focus on action, the application to productivity, and the production of palpable outcomes. SDL is designed to hone awareness, cultivate drive, encourage thoughtful conclusions, and shape plans that all lead to the successful achievement of challenging results.

5. *SDL activities should be conducted in settings suited to their development.* The classroom is a useful setting if it is converted to serve SDL, but even converted it is a limited environment. Many experiences can be brought into the classroom directly or indirectly through simulation, computers, and other media. But SDL thrives best when the setting is expanded to include a broader range of people to learn from and places in which to learn. This begins with the local community and spreads outward to include the widest possible experience of challenge in the world. Many

studies are learned best on site. We learn about others and their lives by knowing them directly and working with them. We develop character by service and other caring acts. We learn by challenging ourselves in real-world situations.

## The Essential Elements of SDL

Any SDL activity, course, or program based on these five fundamental principles will also feature these essential elements:

- *Student control over as much of the learning experience as possible.* The major shift from TDL to SDL is a shift in the locus of control from the teacher to the student. For the student, this represents a shift from outer control to inner control, which reflects the major change under way in the lives of adolescents as they begin to establish themselves as individuals separate from their childhood dependencies. During these years, they begin to shape their own opinions and ideas, make their own decisions, choose their own activities, take more responsibility for themselves, and enter the world of work. Charging students with the task of developing their own learning turns them to their own resources, which develops their emerging individuality and helps them to rehearse more adult roles. As they become more self-directing, they not only learn effectively but become more themselves.

- *Skill development.* Inner control is aimless unless students learn to focus and apply their talents and energies intensely. For this reason, the emphasis in SDL is on the development of skills and processes that lead to productive activity. Students learn to achieve course outcomes, think independently, and plan and execute their own activities. These processes, and the skills involved in them, come together in student proposals for study and action. Students prepare and then negotiate them with their teachers, often in the form of written agreements that become records of the contracts that they negotiate. The intent is to provide a framework that enables students to identify their interests and equips them to realize them successfully.

- *Students' learning to challenge themselves to their best possible performance.* Self-direction is dormant without challenge. First, teachers challenge students, and then they challenge these students to challenge themselves. Challenge requires reaching for a new level of performance in a familiar field or launching an adventure into a new field of interest. It means setting the standard of achievement a step higher than one can readily achieve. Challenging oneself means taking the risk to go beyond

the easy and familiar. For those willing, it means reaching regularly for performances that demand from them the very best they have to offer. The challenge is to go out far and in deep. It is the challenge of the journey heroes take when they leave their safe and familiar surroundings to undertake a task of great significance. In the struggle that ensues, they attain an insight and power that changes their lives and enables them to return and contribute to the communities from which their journeys began.

- *Student self-management—that is, management of themselves and their learning enterprises.* In SDL, choices and freedoms are matched by self-control and responsibilities. Students learn to express self-control by searching for, and making a commitment to, core personal interests and aspirations. In this process, they determine not only what they will do but the kind of performer they will become. SDL requires confidence, courage, and determination to energize the effort involved. Students develop these attributes as they become skilled in managing their own time and effort and the resources they need to conduct their work. Even well-organized efforts run aground. In the face of obstacles, students learn to face their difficulties, find alternatives, and solve their problems in order to maintain effective productivity. The combination of inner resources and performative skill required for self-management in SDL is the same process students will require for the successful management of growth and productivity throughout their lives.

- *Self-motivation and self-assessment.* Many principles of motivation are built into the design of SDL, such as the pursuit of one's own high-interest goals. When students adopt these principles, they become the major elements of self-motivation. By setting important goals for themselves, arranging for feedback on their work, and achieving success, they learn to inspire their own efforts. Similarly, students learn to evaluate their own progress: they assess both the quality of their work and the process that they designed to conduct it. In SDL, assessment is an essential means of learning and learning how to learn: improvement flows from students' critical assessment of their own activities. Students often initiate self-evaluation in the learning agreements that they submit to teachers by including a description of the standards they will strive to attain. Since the responsibility for proving that they have achieved their goals lies with the students, they gather their proofs and products in a portfolio, which becomes the focus of the evaluation. Just as self-motivation energizes students to produce the achievements that are evaluated, self-assessment motivates students to seek the best achievement possible.

These five elements outline the underlying structure of SDL activities and programs. They also describe the challenge of SDL for the teacher as well as for the student. Many programs permit self-direction; too few teach students how to be self-directed. The focus in what follows is on teaching SDL.

## Approaching SDL in Stages

Teachers leaning toward an SDL approach often ask, “Do I have to plunge right in and teach a full-blown self-directed program?” For teachers steeped in the TDL tradition, the switch can be intimidating. Fortunately, there are a number of alternative approaches to choose from. The four we will be emphasizing in the pages ahead are teaching students to think independently, teaching students to manage their own learning, teaching students to plan their own learning, and teaching students to direct their own learning. Each of these alternatives can be regarded as a stage in the transition to SDL, a transition that enables both teachers and students to master their new roles in teaching and learning gradually. The second question teachers ask is, “How do I go about introducing SDL into my classroom?” To answer this question, we have developed a five-step process that involves identifying the outcomes of the course you are teaching, creating an environment that supports SDL activities, teaching the skills and processes that students need to direct their own learning, negotiating with students the proposals that they present for learning, and setting in place a procedure for student self-assessment. The following chapter describes this process.

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There are many pathways to SDL, but all lead students to the skillful and passionate pursuit of their own learning. This can be accomplished only by dedicated teachers who are committed to this vision and equipped to empower their students to become fully and proudly themselves.