Chapter Five Self-Directed Learning

Since Tough's work on adult learning projects was published in 1971, self-directed learning has captured the imagination of researchers and writers both inside and outside the field of adult education. Many public schools and colleges and universities have used this concept to describe one of the primary goals of their institutions: to enable their students to be lifelong, self-directed learners. While certainly adults have always learned on their own, serious study of this phenomenon is relatively recent in comparison to other aspects of learning, such as memory, cognition, and intelligence (see the chapters in **Part Four**). This lag is due in part to much of self-directed learning occurring outside of formal institutional settings, and therefore being so embedded in people's everyday lives as to be invisible. Tied in with this perspective is the role of educators of adults. Should we be working with learners outside the formal institutional environment? And might we be cutting into our own "business" as educators if we acknowledge that many adults can learn very effectively without our assistance? Despite these concerns, the study of self-directed learning has emerged as one the major thrusts of adult education research. There is, in fact, a voluminous literature base to draw from, an annual conference on the topic, and a recently inaugurated Web site (**www.sdlglobal.com**), which houses, along with other resources, an online journal devoted to self-directed learning.

Tough (1967, 1971), building on the work of Houle (1961/1988) and others, provided the first comprehensive description of self-directed learning as a form of study that he termed *self-planned learning*. Drawing on a study of the learning projects of sixty-six people

from Ontario, Canada, he found that "highly deliberate efforts to learn take place all around you. The members of your family, your neighbors, colleagues, and acquaintances probably initiate and complete several learning efforts, though you may not be aware of it" (**Tough, 1971**, p. 3). Writing about the same time as Tough, Knowles proposed that one of the hallmark assumptions of adult learning is that learners become increasingly self-directed as they mature (Knowles, **1970, 1980**). Knowles's thinking about self-directed learning is grounded in his concept of andragogy, discussed in **Chapter Four**. Although there have been challenges to his assumption that adult learners strive toward greater self-direction, there are many who treat it as fact and structure their practice accordingly.

Building on the pioneering work of Houle (1961/1988), Tough (1978, 1979), and **Knowles (1970)**, the earlier research in this arena was primarily descriptive in nature (**Brockett, 1985**; **Caffarella & O'Donnell, 1987**). The emphasis in this early work was on verifying that adults do deliberately learn on their own and on discovering how they go about doing this. Following these descriptive studies, researchers began providing more in-depth conceptual models (for example, **Brockett & Hiemstra, 1991**; **Candy, 1991**; **Garrison, 1997**). Scholars also initiated a debate about what the goals of self-directed learning should be (**Brockett & Hiemstra, 1991**; **Brookfield, 1986**; **Collins, 1988**; **Mezirow, 1985**) and started exploring the personal characteristics and attributes of those who are self-directed in their learning (**Candy, 1991**; **Chene, 1983**; **Oddi, 1986**). In addition, a number of writers sought to bring greater clarity and precision to the term and the many related terms that have been used to describe this phenomenon.

In reviewing this rich array of work on self-directed learning (SDL), we have grouped the literature into three broad categories, each outlining a major facet of self-directed learning. We report first on literature that explores the goals of self-directed learning. We then examine research that describes self-directed learning as a process or form of study. Third, we review self-directedness as a personal attribute of the learner. We conclude the chapter with a discussion of recent applications of SDL and the important challenges to be considered in building future research and theory in self-directed learning.

Goals of Self-Directed Learning

Often defined by the underlying philosophical position of the writer, the three main goals of self-directed learning can be grouped as follows: (1) to enhance the ability of adult learners to be self-directed in their learning, (2) to foster transformational learning as central to self-directed learning, and (3) to promote emancipatory learning and social action as an integral part of self-directed learning.

The first goal, to enhance the ability of adults to be self-directed in their learning, has stemmed primarily from the work of **Knowles (1980)** and **Tough (1979)**. This ability to be self-directed in one's learning is conceived as both a set of personal attributes and specific skills (**Caffarella, 2000**; **Brockett & Hiemstra, 1991**; **Caffarella & O'Donnell, 1989**). Within this goal, the assumption is that part of the job of educators of adults is to help learners, whether they are learning on their own or in formal learning programs, to be able to plan, carry out, and evaluate their own learning. For example, in the independent pursuit of learning, educators might provide assistance to individuals or groups of learners in locating resources or mastering alternative learning strategies. The learners themselves would seek out this assistance, perhaps in community learning centers or through learning technologies. Of course, as some writers point out, we cannot wait until adulthood to begin developing self-directed lifelong learners. This goal is something that needs to be attended to at all levels of schooling from primary education through university and professional training (**Schrader-Naef, 2000**; **Williams, 2001**). This first goal has spawned the majority of research in self-directed learning.

Goal One is grounded primarily in humanistic philosophy, which posits personal growth as the goal of adult learning. Brockett and Hiemstra (1991, pp. 26–27), for example, have stated that their model of self-directed learning, the Personal Responsibility Orientation (PRO) model, is based on three fundamental ideas espoused by this philosophy: "[T]hat human nature is basically good, ... that individuals possess virtually unlimited potential for growth ... [and] that only by accepting responsibility for one's own learning is it possible to take a proactive approach to the

learning process." Accepting responsibility and being proactive take into account two other tenets of humanistic philosophy: personal autonomy and free will to make individual choices.

Goal Two, to foster transformational learning as central to self-directed learning, is found primarily in the work of **Mezirow (1985)** and Brookfield (1985, 1986). Mezirow (1985, p. 27) suggests that "there is probably no such thing as a self-directed learner, except in the sense that there is a learner who can participate fully and freely in the dialogue through which we test our interests and perspectives against those of others and accordingly modify them and our learning goals." In essence, adults need to reflect critically and have an understanding of the historical, cultural, and biographical reasons for their needs, wants, and interests. "Such self-knowledge is a prerequisite for autonomy in self-directed learning" (p. 27). For Mezirow, the "key" to self-directedness is "becoming critically aware of what has been taken for granted about one's own learning" (p. 17). Brookfield (1985, 1986) echoes Mezirow's ideas by calling on adult educators to distinguish clearly between the techniques of self-directed learning and the internal change in consciousness. More specifically, Brookfield (1986, p. 38) asserted that "the most complete form of self-directed learning occurs when process and reflection are married in the adult's pursuit of meaning." The critical reflection component of the second goal is foundational to the third goal of self-directed learning: promoting emancipatory learning and social action.

Writers advancing Goal Three have been some of the strongest critics of the first goal of self-directed learning: enhancing the ability of individual learners to be more self-directed in their learning. The heart of their criticism is that this first goal is too narrow, with the focus of that goal being primarily instrumental learning and assisting individual learners. In contrast, authors who support the goal of promoting emancipatory learning and social action want included not only the examination by learners of the sociopolitical assumptions under which they learn and function but also the incorporation of collective action as an outcome. Unless the definition of self-directed learning is broadened to include these components, these proponents view self-directed learning as merely a technique "to condition the individual into taken-for-granted

acceptance of what is offered" (**Collins, 1996**, p. 115). Collins has been the most persistent and eloquent in echoing these concerns about how self-directed learning has been conceptualized and practiced. Collins emphasizes the importance of having an "unequivocal focus of emancipation as a core concern" in the study of self-directed learning and adult learning in general (p. 119). By this Collins means that participatory research methods should be used to foster democratic and open dialogue about self-directed learning, and ethical and political concerns about self-directed learning should be a part of this dialogue. To foster the study of this critical practice of self-directed learning, Collins suggests that researchers use critical theory and interpretive and participatory research approaches. An example of this orientation is a study by **Andruske (2000)** wherein she investigated the self-directed learning projects of women on welfare. She found that the women became "political change agents as they attempt[ed] to control and to initiate change in their everyday worlds in response to oppressive external structures" (p. 11).

In this same vein, Brookfield (1993, p. 227) asserts that "any authentic exercise of self-directedness requires that certain political conditions be in place." More specifically, Brookfield argues first that having learners exercise control over all educational decisions needs to be a consistent element of self-directed learning. As such, educators of adults in formal and nonformal settings need to shift to learners as much control as possible in the learning process. Brookfield views this shift as difficult to accomplish in settings where the culture itself is highly controlling, such as some higher education institutions or corporate environments. Therefore, he asserts that educators "might decide to work collectively at changing the political culture of institutions. ... Control from this perspective would be seen in our coming to understand the origins, functioning and contradictions of the system and in our working to change or replace it with one that honors our daily activities as educators" (1993, p. 235). Second, Brookfield calls for more easily accessible and adequate resources so that learners can more readily exercise control over their learning, especially learners who have been denied access to resources because of cost or preferential treatment for privileged groups.

Most of the process models reviewed in the next section reflect Goal One, enhancing the ability of adult learners to be self-directed in their learning, and to a lesser extent, Goal Two, fostering transformational learning.

Self-Directed Learning as a Process

Self-directed learning as a process of learning, in which people take the primary initiative for planning, carrying out, and evaluating their own learning experiences, has received a great deal of attention in the literature. We contend, as described in **Chapter Two**, that this form of learning can take place both inside and outside institutionally based learning programs. For the most part, however, being self-directed in one's learning is a natural part of adult life. Within this category of self-directed learning as a process, three types of models—linear, interactive, and instructional—have been extensively discussed in the literature. In the next three subsections we set out descriptions and critiques of the most prominent and the most promising models of self-directed learning. These models represent a mixture of conceptual, empirical, and experientially derived views of the process of self-directed learning.

Linear Models

The early models of self-directed learning, those proposed by **Tough (1971)** and **Knowles (1975)**, were linear in nature. Learners moved through a series of steps to reach their learning goals in a self-directed manner. The resulting frameworks of the learning process for these models included many elements of the traditional teaching process.

Tough (1967, 1971, 1979) proposed the first comprehensive description of self-directed learning, which he termed self-planned learning. Drawing on a study of the learning projects of sixty-six people from Ontario, Canada, he found that 70 percent of all learning projects were planned by the learners themselves. He defined a learning project as "a highly deliberate effort to gain and retain certain definite knowledge and skill, or to change in some other way. To be included, a series of related learning sessions (episodes in which the person's primary intention was to learn)

must add up to at least seven hours" (**Tough, 1978**, p. 250). Tough found that learners used thirteen steps in self-planned learning projects, representing key decision-making points about choosing what, where, and when to learn along with deciding on resources for learning, detecting possible barriers to learning, and so on.

Tough's research on self-directed learning became the basis for numerous dissertations and research studies around the world. In the 1970s and early 1980s a range of specific populations were studied using Tough's original or modified interview schedule. These studies confirmed the prevalence of self-directed learning in adults' lives. Although there is some variance across these studies in the amount and type of self-directed learning that goes on in the general population, we can say without reservation that the existence of the independent pursuit of learning in adulthood has been established (**Brookfield, 1984**; **Caffarella & O'Donnell, 1987**; **Owen, 2002**).

Knowles's (1975) description of self-directed learning consists of six major steps: (1) climate setting, (2) diagnosing learning needs, (3) formulating learning goals, (4) identifying human and material resources for learning, (5) choosing and implementing appropriate learning strategies, and (6) evaluating learning outcomes. His steps are somewhat similar to those proposed by **Tough (1979)**. Knowles includes numerous resources for both learners and teachers for completing each of these tasks. Among the materials he describes, we have found the ones on learning contracts and evaluation to be the most useful. Although the work of Tough and Knowles "has provided the language, the concepts, and more importantly the descriptive terms for key elements and processes of self-planned learning" (**Kasworm, 1992**, p. 56), other scholars have conceptualized different processes.

Interactive Models

A second portrait of self-directed learning is that this learning process is not so well planned or linear in nature. Rather, there is an emphasis on two or more factors, such as opportunities people find in their own environments, the personality characteristics of learners, cognitive processes, and the context of learning, which collectively interact to form episodes of self-directed learning.

Three such models are discussed as illustrative of the work in this arena: the models of **Spear (1988)**, **Brockett and Hiemstra (1991)**, and **Garrison (1997)**.

Spear's Model

Spear (1988), building on his earlier work with Mocker (**Spear & Mocker, 1984**), has presented a model that rests on three elements: the opportunities people find in their own environments, past or new knowledge, and chance occurrences. Spear proposed that each self-directed learning project is composed of sets or clusters of those elements. For example, a move from an apartment to a single-family residence affords an opportunity to pursue gardening. This fortuitous action in conjunction with some prior knowledge of gardening, perhaps in combination with a chance encounter with an old friend who is an accomplished gardener, results in a self-directed learning project.

Spear also concluded from his study that self-directed learning projects do not generally occur in a linear fashion—that is, one cluster does not necessarily bear any relation to the next cluster. Rather, information gathered through one set of activities (one cluster) is stored until it fits in with other ideas and resources on the same topic gleaned from one or more additional clusters of activities. A successful self-directed learning project is one in which a person can engage in a sufficient number of relevant clusters of learning activities and then assemble these clusters into a coherent whole. Spear (1988, p. 217) concludes, "The learner is perhaps in greatest control when the assembling of the clusters begins and decisions are made regarding what knowledge is of most and least importance."

Although only a few studies have been conducted using all or parts of Spear's framework (for example, **Berger, 1990**; **Padberg, 1994**), other researchers have come to similar conclusions in their work. Danis and Tremblay (1987, 1988), for example, who studied ten long-term adult learners, found that their respondents were able to specify learning goals only when they had mastered certain knowledge or skills, and that in general these learners went about learning on their own using multiple approaches as opposed to only one approach. In addition, they noted that the impact of random events stood out in that these learners took advantage of any

opportunities offered to them. **Berger (1990)**, in her study of twenty white males with no formal degrees beyond high school, found little evidence that her subjects did any preplanning in their self-directed learning activities. Her subjects "constantly redefined their projects, changed course, and followed new paths of interest as they proceeded" (p. 176). In essence, the majority of her respondents adopted a trial-and-error approach, with an emphasis on hands-on experience and practice, guiding themselves by both their successes and their mistakes as they moved on to new levels of learning.

Brockett and Hiemstra's Model

In their Personal Responsibility Orientation (PRO) model, Brockett and Hiemstra (1991, p. 26) provide a new framework for what they term *self-direction in learning*, which comprises "both instructional method processes (self-directed learning) and personality characteristics of the individual learner (learner self-direction)." In the instructional processes dimension, learners assume primary responsibility for planning, implementing, and evaluating their learning experiences. The authors note that "an educational agent or resource often plays a facilitating role in this process" (p. 24). In this facilitation role, instructors must possess skills in helping learners do needs assessments, locate learning resources, and choose instructional methods and evaluation strategies. Many of these skills have been discussed in previous literature on self-directed learning (for example, **Knowles, 1975**, and **Tough, 1979**) and are stressed in their model, with an emphasis on the interactive nature of the teaching and learning process.

Their second dimension, related to the personality characteristics of individual learners, "centers on a learner's desire or preference for assuming responsibility for learning" (**Brockett & Hiemstra, 1991**, p. 24). The notion of personal responsibility, which they define as "individuals assuming ownership for their own thoughts and actions" (p. 26), is the point of departure for understanding their concept of self-direction in adult learning. Their concept of personal responsibility is grounded in the concepts of humanism and human potential. Although they agree that individual learners are central to the idea of self-direction, they also regard the context, or social milieu, in which that learning activity

transpires as important. In acknowledging these contextual factors, they recognize the importance of situational factors in the self-directed learning process, which mirrors others' descriptions of the process of self-directed learning.

Hiemstra (1992) and Hiemstra and **Brockett (1994)** have further described various aspects of using self-directed learning as an instructional method. Further, two recent dissertations were based on the PRO model. **Stockdale (2003)** developed an instrument to assess the two components (teaching-learning and learner characteristics) of the model. Her thirty-five-item Personal Responsibility Orientation to Self-Direction in Learning Scale (PRO-SDLS) was found to be highly reliable with the sample of graduate and undergraduate education students. **Fogerson's (2005)** study correlated Stockdale's PRO-SDLS instrument with selected satisfaction variables in an online higher education course. While the reliability of the PRO-SDLS was confirmed, no significant correlations were revealed between the scale and satisfaction. Fogerson speculates that this finding might be due to the student population, who were older and had experience with online courses; they also reported being "satisfied" or "very satisfied" with the course.

Garrison's Model

Garrison (1997) is the most recent scholar to propose a multidimensional and interactive model of self-directed learning. His model (see **Figure 5.1**), grounded in a "collaborative constructivist" perspective, "integrates self-management (contextual control), self-monitoring (cognitive responsibility) and motivational (entering and task) dimensions to reflect a meaningful and worthwhile approach to self-directed learning" (p. 18).

The first dimension, self-management, acknowledges the social milieu in which learners are interacting, whether they are in formal or informal settings. It involves learners' taking control of and shaping the contextual conditions so that they can reach their stated goals and objectives. "Control," says Garrison, "does not translate into social independence or freedom from influence. Educational self-management concerns the use of learning materials within a context where there is opportunity for sustained communication. Self-management of learning in an educational

context must consider the opportunity to test and confirm understanding collaboratively" (1997, p. 23), which translates into increased responsibilities for the learner.

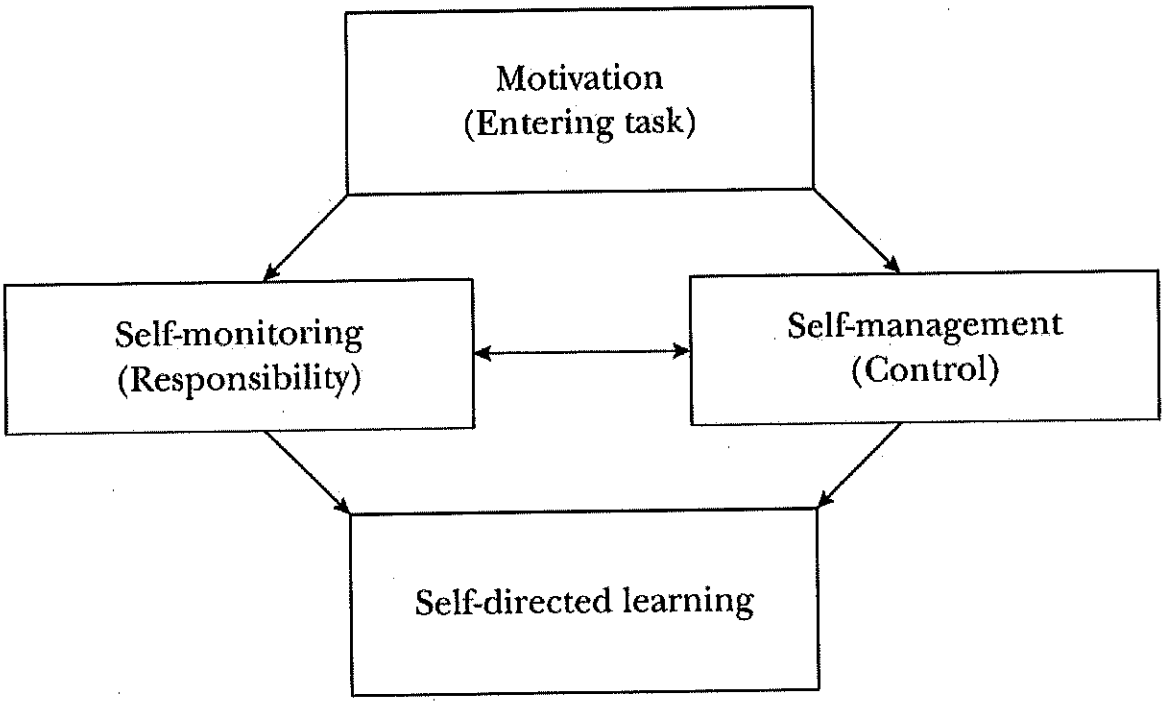

Figure 5.1. Dimensions of Self-Directed Learning.

Source: **Garrison, 1997,** p. 22. Reprinted by permission.

"The next two dimensions of the model—self-monitoring and motivation—represent the cognitive dimensions of self-directed learning" (1997, p. 24), which Garrison believes have been given little attention in the literature on self-directed learning. Self- monitoring describes the ability of learners to be able to monitor both their cognitive and metacognitive processes, which includes their being able to use a repertoire of learning strategies and the ability to think about their thinking. "Self-monitoring is synonymous with responsibility to construct meaning ... [and] is very much associated with the ability to be reflective and think critically" (pp. 24–25). The motivational dimension involves what influences people to participate or enter into a self-directed learning activity and what keeps them participating in the activity or task: "Motivation and responsibility are reciprocally related and both are facilitated by collaborative control of the educational transaction"

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(p. 29). Garrison observes that self-monitoring and motivation need to be explored in much greater detail by those studying self-directed learning.

Other Models

A number of other interactive models of the self-directed learning process have been introduced into the literature. After conducting a case study of how the Wright brothers learned to fly, **Cavaliere (1992)** identified five stages of a learning project—inquiring, modeling, experimenting, theorizing, and actualizing. Within each of these steps were four cognitive processes. Her model, though not tested, is provocative in describing the stages of the process as well as the cognitive elements that cut across the stages.

Danis's (1992) "framework" for studying self-directed learning incorporates research from SDL, self-instruction, and learning and study strategies. The main components thus consist of learning strategies, phases of the learning activity, the content of the learning, learner or collective learner characteristics, and the external context of the learning activity. Unlike the other models reviewed, Danis explicitly takes into account the context as well as the potential of self-taught groups of learners. A recent study (**Rager, 2003**) of the self-directed learning of women with breast cancer, underscores the importance of context and seems to fit well with Danis's framework. Rager's study uncovered the emotional context as critical in shaping participants' SDL: "As reported by the participants, emotions interfered with their ability to begin learning and their ability to make use of some resources, influenced their reactions to some of the information they did find, and impaired their ability to stay focused" (2003, p. 290).

Other models of the self-directed learning process can be found in studies of specific populations or topics. For example, **Valente (2005)** studied the self-directed learning process of older adults who managed their own health care. Her model begins with a "health event." Once a health event is diagnosed, the cycle of self-directed learning begins. Health care professionals are consulted, which stimulates the older adult to acquire and assess information, followed by choosing a treatment option. The treatment is monitored and reflected upon and adjustments in lifestyle or treatment or both are made. The cycle then repeats itself as the learner

acquires and assesses more information, often in consultation with health care professionals.

Roberson and Merriam (2005) also uncovered a process of self-directed learning in their study of rural older adults. The process begins with an incentive, often related to late life changes, to learn; if the person has an interest in the topic or activity, he or she will pursue it. Next, resources are accessed and systematic attention and time are given to the project. Adjustments are made as the project progresses. An interesting component of the process is that the motivation and intensity to learn are often enhanced by a catalyst, such as another person stimulating interest, or a late-life change in family or health.

Instructional Models

The third category of self-directed learning models represents frameworks that instructors in formal settings could use to integrate self-directed methods of learning into their programs and activities. Two models are highlighted that were designed with formal settings in mind: those of **Grow (1991)** and of Hammond and **Collins (1991)**.

Grow's (1991, 1994) Staged Self-Directed Learning (SSDL) model outlines how teachers can help students become more self-directed in their learning. Grow, who grounded his model in the situational leadership model of **Hersey and Blanchard (1988)**, describes four distinct stages of learners:

Stage 1: Dependent learner: Learners of low self-direction who need an authority figure (a teacher) to tell them what to do
Stage 2: Interested learner: Learners of moderate self-direction who are motivated and confident but largely ignorant of the subject matter to be learned
Stage 3: Involved learner: Learners of intermediate self-direction who have both the skill and the basic knowledge and view themselves as being both ready and able to explore a specific subject area with a good guide
Stage 4: Self-directed learner: Learners of high self-direction who are both willing and able to plan, execute, and evaluate their own learning with or without the help of an expert

At each of these stages, Grow outlines possible roles for the teacher or facilitator. **Figure 5.2** shows how the four types of learners, four roles of the facilitator, and appropriate instructional methods are interrelated. Grow also explores the problems that may arise when there is a mismatch between the role or style of the teacher and the learning stage of the participants. Grow emphasizes that good teachers individualize their teaching strategies to match the learners' stage of self-direction and allow the students to become more self-directed in their learning. Therefore, integrating self-directed learning as a way to organize learning experiences is situational in nature.

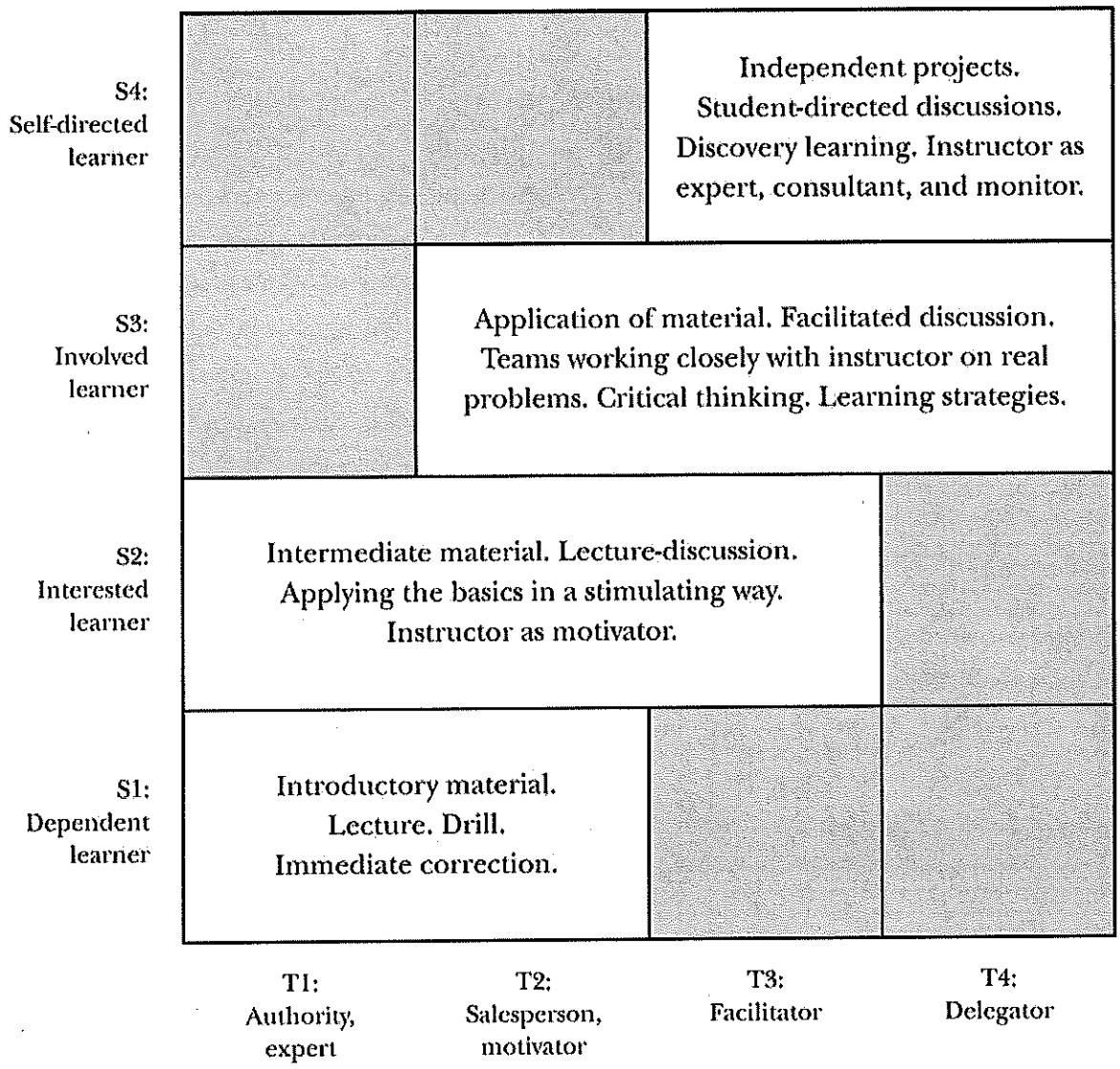

Figure 5.2. Applying the Staged Self-Direction Model to a Course.

Source: **Grow, 1991, p. 143. Reprinted by permission.**

The instructional model proposed by Hammond and **Collins (1991)** is the only model that explicitly addresses the goal of promoting emancipatory learning and social action as a central tenet of self-directed learning. Grounding their work in studies of critical pedagogy, popular education, and participatory research, these authors have outlined a seven-component framework for assisting learners in formal settings to engage in the critical practice of adult education. In their model, learners take the initiative for:

1. Building a cooperative learning climate
2. Analyzing and critically reflecting on themselves and the social, economic, and political contexts in which they are situated
3. Generating competency profiles for themselves
4. Diagnosing their learning needs within the framework of both the personal and social context
5. Formulating socially and personally relevant learning goals that result in learning agreements
6. Implementing and managing their learning
7. Reflecting on and evaluating their learning

What makes their model different from Knowles's and other process models is the purposeful inclusion of the critical perspective through the examination of the social, political, and environmental contexts that affect their learning, and the stress on developing both personal and social learning goals.

Although greater control of the learning process is what Hammond and Collins see as the immediate goal for learners using their model of critical self-directed learning, their "ultimate goal is to empower learners to use their learning to improve the conditions under which they and those around them live and work" (1991, p. 14). As with other models of SDL, such as **Garrison's (1997)** and **Cavaliere's (1992)**, we found no studies where the researchers used Hammond and Collins's model as their conceptual framework.

Self-Direction as a Personal Attribute of Learners

An important focus in the research literature on self-directed learning has been self-directedness as a personal attribute or characteristic of the learner. The assumption underlying much of this

work is that learning in adulthood means becoming more self-directed and autonomous. Recall that one of Knowles's (1980, p. 43) four major tenets of andragogy is that mature "adults have a deep psychological need to be generally self-directing." **Brockett and Hiemstra (1991)** echo Knowles's assumption in that they see a link between learner self-direction, which they define as characteristics of learners that predispose them toward taking primary responsibility for their own learning, and a positive self-concept. **Tennant and Pogson (1995)** have asserted that "the idea of autonomous or self-directed learning is firmly entrenched in contemporary thinking about adult education and there has been a great deal of scholarly interest in the subject" (p. 121).

Research into the nature of the self-directed learner asks the who and what questions: Are these learners introverts or extroverts? What is their learning style? What level of education have they achieved, and does this affect their ability to be self-directed? Are they more autonomous than other learners? How do we know if learners are ready for self-directed ways of learning? Basically, researchers are trying to gain an understanding of the typical self-directed learner's characteristics or attributes. More specifically, researchers have tried to link a number of different variables, such as learning style, level of education, or life satisfaction, with being self-directed in one's learning. Findings from these studies have been, for the most part, inconclusive. The focus on SDL as a personal attribute has also been studied with the use of instruments assessing the presence of self-direction as a trait, and of the readiness to be self-directed; further discussions center on the concept of autonomy and its relationship to self-direction.

Assessing Self-Directedness

Two instruments, the OCLI and the SDLRS, have been widely used to assess aspects of self-directedness as a personality trait. The Oddi Continuing Learning Inventory (OCLI) is a twenty-four-item Likert scale that measures one's self-directedness as a personality trait (**Oddi, 1986**; **Oddi, Ellis, & Roberson, 1990**). More than twenty-five variables have been positively correlated with self-directedness as measured by the OCLI; some of these variables are self-efficacy, self-concept, personal responsibility, on-the-job learning, grade point average, and left

brain hemisphericity (**Owen, 2002**). It might be mentioned that the OCLI was developed by a nurse educator particularly interested in participation in continuing professional education (CPE); hence, a number of studies with the OCLI are in areas of CPE.

Readiness, which implies an internal state of psychological readiness to undertake self-directed learning, has received the most attention in the study of self-directed learning in terms of data-based studies (**Guglielmino, 1997**). **Guglielmino (1977)** has provided the most-used operational definition for self-directed learning. She states that it consists of a complex of attitudes, values, and abilities that create the likelihood that an individual is capable of self-directed learning. She identifies the psychological qualities involved in readiness for self-directed learning as initiative, independence, and persistence in learning; acceptance of responsibility for one's own learning; self-discipline; a high degree of curiosity; a strong ability to learn independently; enjoyment of learning; a tendency to be goal oriented; and a tendency to view problems as challenges rather than obstacles. These qualities undergird her Self-Directed Learning Readiness Scale (SDLRS), of which there are two versions, one of them a self-scoring version (the Learning Preference Assessment).

The SDLRS is the most frequently used quantitative measure in studies of self-directed learning. Examined in studies using the SDLRS are a wide range of issues from relating readiness for self-directed learning with job satisfaction, course grades, occupation, self-concept, life satisfaction, job performance, and so on (**Owen, 2002**). Many of these studies are correlational, examining the relationship of SDLRS scores with scores on other instruments. For example, in a report of three dissertations using the SDLRS, one correlated the SDLRS with a scale measuring cross-cultural adaptability, another correlated the SDLRS with a learning style instrument, and the third used a scale measuring creativity (**Beswick, Chuprina, Canipe, & Cox, 2002**). All three studies found positive relationships between self-directed learning readiness scores and scores on the instruments measuring cross-cultural adaptability, learning styles, and creativity.

Examples of the most far-reaching implications, based on studies using readiness as a major variable, are that "individual readiness for self-directed learning could be an important factor in

matching certain types of jobs with applicants seeking those jobs" (**Guglielmino & Roberts, 1992**, p. 271) and that "employees who score lower in readiness for self-directed learning should be given opportunities to become effective self-directed learners" (**Durr, Guglielmino, & Guglielmino, 1996**, p. 355).

Over the years claims and counterclaims have been made about the basic reliability and validity of the SDLRS. Without getting into the intricacies of these claims, we concur with Brockett and Hiemstra's (1991, pp. 74–75) assessment:

We believe that despite several apparent substantive and methodological concerns, the SDLRS has made a most important contribution to the present understanding of the self-directed learning phenomenon by generating considerable research, controversy and dialogue. We think that this contribution ultimately outweighs the limitations that seem to be inherent within the instrument. At the same time, we believe that the criticisms raised cannot be overlooked. There remains too many questions, particularly relative to the validity of the scale. We are unwilling to dismiss the scale [like Field and Straka]. However, we do recommend that the SDLRS be used with the same discretion as any other standardized instrument.

Autonomy and Self-Directedness: Innate or Situational?

The relationship of autonomy and self-directedness in learning has been discussed primarily at the conceptual level. **Chene (1983)**, for example, defines three elements that describe an autonomous learner: independence, the ability to make choices and critical judgments, and the capacity to articulate the norms and limits of a learning society. **Candy (1991)** adds to Chene's notion of the autonomous learner by characterizing autonomous people as those with a strong sense of personal values and beliefs. These values and beliefs give them a solid foundation for conceiving goals and plans, exercising free choice, using rational reflection, having the willpower to follow through, and exercising self-restraint and self-discipline. The same overarching concepts of independent thinking, self-responsibility, and control over actions of learning are also highlighted by **Brockett and Hiemstra (1991)**, **Garrison (1992)**, and **Tennant and Pogson (1995)**.

Autonomy, however, is not necessarily context-free; there is a relationship between the personal and situational variables that must come into play for a person to be autonomous in certain learning situations. Knowles (1975, 1980) was the first to express the importance of context in his descriptions of andragogy. He qualified his assertion that adults are naturally self-directing when he observed that people move toward self-directedness at differing rates and not necessarily in all dimensions of life, and that in some situations adults may need to be at least "temporarily dependent" in learning situations. For example, when coping with a crisis, such as a flood or an earthquake, people may need or want to rely on the information and direction of others, both during the event itself and at least for a time in the aftermath of the event. This same sentiment, that even those adults who can and want to be self-directed in their learning may choose not to exhibit or pursue this characteristic at certain times, has been expressed by a number of authors (**Brockett & Hiemstra, 1991**; Candy, **1987, 1991**; **Pratt, 1988**; Tenant & Pogson, 1995).

A recent study has confirmed the situational characteristic of autonomy in SDL (**Poulton, Derrick, & Carr, 2005**). Using a path-analytic model relating resourcefulness and persistence in SDL of 492 adults, the authors found that although adults might intend to persist in valued learning activities, they often do not choose to engage in such activities. They attribute this to the nature of adulthood: "Although an adult may anticipate the future rewards of present learning and even prioritize such learning over nonlearning activities in terms of value attribution, the lawn may need mowing, the kids may need to be taken to soccer practice, or perhaps a friend may need consoling now. ... The exhibition of autonomy is presently argued as domain specific. That is, one can be an autonomous lawn mower or an autonomous learner" (p. 124).

Four major variables appear to have the most influence on whether individual adult learners exhibit autonomous behavior in learning situations: their technical skills related to the learning process, their familiarity with the subject matter, their sense of personal competence as learners, and their commitment to learning at this point in time. "Since this combination will vary from situation to situation, a learner's autonomy is also likely to vary from one context to another, and educators must avoid the automatic assumption that simply because a person has successfully learned

something in the past either in an instructional setting or outside it, he or she will be able to succeed in a new area: Orientation, support and guidance may all be required in the first stages of a learning project" (**Candy, 1991**, p. 309). In addition, moving from an individual to more of a collective context, **Candy (1991)** and **Tennant and Pogson (1995)** posit that the socially constructed nature of the self and knowledge may also limit adults' capacity for autonomy or self-directedness in learning. Adults, in part, are their historical and cultural selves and often find themselves in learning situations where others around them determine what is worth knowing and how that knowledge should be used.

In a similar vein, **Boucouvalas (1988)** has challenged the exclusive emphasis on the autonomous self as only a partial explanation of what selfhood is all about. Although autonomy reflects independence and uniqueness, homonomy is "the experience of being part of meaningful wholes and in harmony with superindividual units such as family, social group, culture, and cosmic order" (p. 58). The prime motivations for the autonomous self are achievement and conquest, whereas participation in something beyond the individual self is the motivation for the homonomous (connected) self. Other writers in self-directed learning agree with Boucouvalas's observation and call for further exploration of the social and cultural aspects of self-directedness and the concept of interdependence in the learning process (**Ahteenmaki-Pelkonen, 1994**; **Brown, 2000**; **Nah, 2000**; **Rowland & Volet, 1996**). **Nah (2000)**, for example, points out that for Koreans to cultivate self-directedness and independence "without being interdependent passes for immaturity or self-centeredness" (p. 18). Giving wider recognition to this connected or interdependent part of the self may allow for a fuller explanation of the collaborative aspects of self-directed learning referred to by Tough (1978, 1979), **Knowles (1975)**, and **Caffarella (1993)** in activities such as teamwork, shared resources, and peer networks.

Recent Applications of SDL and Building Research and Theory

Recent research and writing in SDL demonstrates an interest in the concept's applicability to lifelong learning, human resource development, and online learning. **Schrader-Naef (2000)** makes

the case that to implement lifelong learning in society, "schools of all levels have to set the foundations for self-directed lifelong learning and adult education has to build on those foundations" (p. 143). No longer can educational systems "hand on knowledge to the next generations"; rather, schools from primary through university must "develop the conditions, foundations and motivation" for people to see learning as "their own responsibility and motivation" (p. 144).

The professions in particular are recognizing the importance of developing practitioners to be lifelong learners. Nowadays, formal training is only a beginning; knowledge is accumulating at such a fast rate that one must continue to learn to be effective (**Williams, 2001**). Indeed, most professions mandate that their members continue learning in order to maintain their license to practice. Self-directed learning activities, such as journal reading, are growing in acceptance as one form of CPE (**Cole & Glass, 2004**). Research to better understand the nature of SDL in professional lives is another form. **Sipe (1995)** studied experimentally "open" teachers and found that they valued SDL, collaboration, reflection, and challenge; risk taking in their learning was seen as an opportunity, not a threat. **Dunlap and Grabinger (2003)** make the case that in order to prepare students in higher education to be lifelong learners, we must develop their capacity for self- direction, metacognitive awareness, and a disposition toward learning. They propose three teaching strategies to facilitate these ends: problem-based learning (PBL), intentional learning environments, and cognitive apprenticeships. Similar to Dunlap and Grabinger's work is **Bolhuis's (2003)** process-oriented teaching for self-directed lifelong learning. He argues that since learning is a social phenomenon, even in SDL we need to consider how the social context, prior knowledge, and emotional aspects of learning foster self-directed lifelong learning.

The role of SDL in human resource development (HRD) practice is also drawing attention. Some propose how SDL can be harnessed to address the needs of the organization. For example, Piskurich (1993, p. 330) defined SDL as "a training design in which trainees master packages of predetermined material, at their own pace, without the aid of an instructor," noting that there is little choice in learning objectives on the trainees' part, particularly in technical and skills training. **Smith (2002)** also advances this utilitarian notion

of SDL by pointing out that "there is considerable commercial value in encouraging employees" to be self-directed learners because they can then "contribute to competitiveness without the need for all learning to occur when there is direct training by an instructor" (p. 111). **Guglielmino and Guglielmino (2005)** have in fact explored the relationship between self-directed learning readiness, dimensions of culture, and economic indicators for seven countries. They found strong positive relationships between self-directed learning readiness and gross domestic product per capita and per-capita income.

Other writers consider how the self-directed part of SDL can enhance the workplace. **Brown (2000)** examined the interaction between social influences at work and the individual's commitment to being self-directed. **Clardy's (2000)** study of job-related self-directed learning projects of fifty-six employees from five organizations found three types of projects—induced, voluntary, and synergistic. Induced SDL projects are undertaken by an employee because of some perceived imbalance between current and needed skills, voluntary projects are those an employee undertakes because of a personal desire to learn, and synergistic projects "arise in situations where there are new enabling organizational conditions that ignite a latent employee readiness to act and learn" (p. 121). Interestingly, among the five organizations studied, the one where the most synergistic and voluntary projects were found was an organization that "used a system of organizational practices that formed a culture of learning" (p. 118).

That SDL and the learning organization are interrelated is explored by **Cho (2002)**. Cho points out that although "the primary purpose of SDL has been recognized as personal growth, interaction and collaboration with others can play very important roles in the process. ... Such interdependent and collective aspects of SDL appear to be fully consistent with some essential characteristics of the learning organization" (2002, pp. 468–469).

One of the most thoughtful examinations of the linkages between SDL and HRD is by **Ellinger (2004)**. She reviews the literature on SDL with special attention to how instructional models, organizational characteristics, and assessment tools can all be incorporated into promoting SDL in an HRD context. The article concludes with a number of suggestions for research and theory building in this area, such as assessing the prevalence of SDL in

the workplace, how it is linked with organizational learning, the cultural and ethical issues involved, and so on.

One of Ellinger's suggestions for research is to examine the impact of technology on SDL. This is definitely an area of growing interest with the prevalence of the Internet and Web-based instructional strategies. Recent studies of SDL have uncovered the fact that the Internet is an important learning resource (**Roberson, 2003**; **Valente, 2005**). But the Internet is not only a resource in SDL; many studies of online learning at least acknowledge if not foster the need for self-direction on the part of learners in this environment. **Freed (2003)**, for example, examined how graduate students in an online discussion used reflection, dialogue, and self-direction to construct knowledge. Another study attempted to correlate self-directed learning readiness with student success as measured by grades in Web-based courses (**Pachnowski & Jurczyk, 2000**). Self-directedness turned out not to be a good indicator of success, but this may have been due to the very low participation rate and the difficulties of collecting data from distance education students. Finally, it is an interesting speculation that younger generations of students and workers "for whom the Web is becoming a natural habitat," may already be "adapting to change by developing a self-directed learning orientation" (**Kerka, 1999**, p. 2).

Research on self-directed learning continues to engage both academics and practitioners, as noted earlier in this chapter. There is also an active research group at the University of Tennessee exploring the literature on SDL. This group has reviewed dissertations produced between 1980 and 2002 (**Canipe & Fogerson, 2004**) and analyzed ERIC documents that appeared between 1993 and 2003 (**Canipe, Fogerson, & Duffley-Renow, 2005**). Analyses of both databases suggest a steady interest in and research on SDL.

There is a sense, however, that research and theory building in self-directed learning is in need of fresh questions. **Brockett (2000)** attributes the decline in the number of *published* articles (in contrast to the dissertations and ERIC documents already mentioned) on SDL since the mid-1980s with the shift away from "the individual adult learner toward looking at the sociopolitical context of adult education" (p. 543). This sociopolitical context is, of course, one of the very questions that could be explored with regard to SDL. **Brockett (2000)** also suggests that the field consider developing "new

ways to measure self-directedness" and "raise questions about the limits of self-direction, and how self-direction interfaces with issues of power and conflict in various practice settings" (pp. 543–544). From **Brockett's (2000)**, **Ellinger's (2004)**, and our own thinking, we suggest the following areas for investigation, all of which could expand our understanding of adult learning through SDL:

- How do issues of power and control interact with the use of SDL in formal settings?
- Does being self-directed as a learner have an impact on one's own instructional and planning activities?
- Are there public policy issues at the national, state, or local level related to SDL? If so, what roles could adult educators play in advocating and developing such policies?
- Should policy and procedures be formulated related to SDL in formal settings, such as the workplace, so that SDL is recognized as an integral part of education and training programs?
- What constitutes the critical practice of self-directed learning? How can critical SDL practice be incorporated in our work as educators?
- To what extent is SDL situational or cultural?
- How do cultural and contextual factors shape SDL?
- How is technology relating to and affecting SDL?

Summary

Self-directed learning is one of the most researched topics in adult learning. Although learning on one's own has been the principal model of learning throughout the ages, serious studies of this subject did not become prevalent until the 1970s and 1980s. In reviewing this research, what became clear is that self-directed learning is a multifaceted concept. Therefore, we grouped the work that we reviewed into three broad categories: the goals of self-directed learning, processes and applications of self-directed learning, and self-direction as a personal attribute of learners.

In discussing the goals of self-directed learning, three major ones were identified. The first goal, that of enhancing the ability of adults to be self-directed in their learning, has generated the most research in self-directed learning. The fostering of transformational