

# The Concept of Self-Directed Learning and Its Implications for Human Resource Development

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**The problem and the solution.** Learners are increasingly being challenged to assume more responsibility for their own learning and development in work organizations. Although the concept of self-directed learning (SDL) has a rich history of research and practice in the adult education field, it has not received considerable attention in the context of HRD. Therefore, this article will introduce SDL and overview its various conceptualizations, examine approaches and techniques that can be used in HRD practice, and suggest how future research can extend our understanding of SDL in the context of HRD.

**Keywords:** *self-directed learning; self-directedness; self-direction; self-learning and development; adult learning*

It has been well established in the scholarly literature that learning is a significant source of competitive advantage for organizations and that creating environments conducive for learning and development can enhance individual and organizational performance (Ellinger, Ellinger, Yang, & Howton, 2002; Marsick & Watkins, 1999; Pfeffer & Veiga, 1999). As leaders, managers, and human resource professionals attempt to build learning infrastructures that leverage formal and informal learning, learners are being increasingly challenged to become continuous lifelong learners and assume more responsibility for their own learning and development so that they can remain employable and marketable (Carré, 2000; Dunlap & Grabinger, 2003; Durr, Guglielmino, & Guglielmino, 1996; London & Smither, 1999; Maurer, 2002; Stansfield, 1997; Vann, 1996). Concurrent with these chal-

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The author's intent is not to present a comprehensive review of literature on the topic of self-directed learning (SDL) but rather to offer an overview of key concepts and stimulate research interest on SDL within the context of HRD. The author would like to thank the issue editor, editors, and reviewers for their insightful and helpful comments on earlier versions of this article. This article was subjected to a two-tier blind review process that did not involve the author, who is currently a member of the ADHR Editorial Board.

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allenges, the escalating pace of technology, increased global competition, and growing emphasis on cost efficiency and effectiveness require that organizations become more responsive in addressing learning needs and adopt more flexible approaches (Guglielmino & Guglielmino, 2001; Guglielmino & Murdick, 1997; Zemke, 1998). Therefore, flexible training, delivery, and self-directed learning approaches have emerged as organizational responses to meet the complex demands associated with the changing world of work (Smith, 2001; Stansfield, 1997).

Self-directed learning (SDL) has been an influential adult learning concept within the field of adult education for more than three decades. However, Holton, Swanson, and Naquin (2001) have suggested that limited attention has been given to adult learning in the performance improvement literature and that expertise is needed among human resource development professionals when learning is deemed to be the appropriate performance improvement intervention. Given the trends toward self-learning and self-development and the growing importance of the workplace as an environment for learning, an understanding of SDL can enhance human resource development (HRD) research and practice. Therefore, the purpose of this article is to introduce SDL and provide an overview of its various conceptualizations, examine how SDL approaches and techniques can be used in HRD practice, and suggest how future research can extend our understanding of SDL in the context of HRD.

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

How adults learn has been a central question since the founding of adult education as a professional field of practice in the 1920s. More than 80 years later, Merriam (2001) has acknowledged that “we have no single answer, no one theory, or model of adult learning that explains all that we know about adult learners, the various contexts where learning takes place, and the process of learning itself” (p. 3). Merriam has characterized the knowledge base on adult learning as being comprised of “a mosaic of theories, models, sets of principles, and explanations” (p. 3). One important piece of that mosaic is self-directed learning (SDL), which has been conceived as a foundational multifaceted adult learning concept that has been a prominent area of research for more than three decades (Merriam & Caffarella, 1991, 1999).

SDL has been variously defined in the literature (Caffarella, 1993; Carré, 2000; Gerber, Lankshear, Larsson, & Svensson, 1995; Hiemstra, 2000; Straka, 2000). Despite the lack of a universal definition, SDL is often broadly conceived as self-learning in which learners have the primary responsibility for planning, carrying out, and evaluating their own learning experiences (Caffarella, 2000; Hiemstra, 2000; Merriam & Caffarella, 1991, 1999). SDL can take place both inside and outside of the confines of formal educational institutions and does not

necessarily infer learning in isolation, as learners may draw on others as helpers and resources to assist in their self-directed learning activities. Knowles (1975) defined SDL as

a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (p. 18)

One of Knowles' core assumptions about adult learning is that adult learners become increasingly self-directed as they mature.

SDL is related to, but not synonymous with, informal and incidental learning (Cseh, Watkins, & Marsick, 2000; Marsick & Watkins, 1997, 2001). Informal and incidental learning refers to the learning that results from the natural opportunities that occur in a person's life when the person controls his or her own learning (Cseh, Watkins, & Marsick, 1999). Informal learning is learning that is predominantly unstructured, experiential, and noninstitutional (Marsick & Volpe, 1999). Although informal learning can be planned, it also includes learning that is not designed or expected because learners may not set out intentionally and explicitly to learn something through preplanned approaches. Some types of informal and incidental learning include self-directed learning, social learning, mentoring, coaching, networking, learning from mistakes, and trial and error (Cseh et al., 2000).

SDL is also distinguished from self-managed learning (SML) as defined by Cunningham, who coined the term in the 1970s to describe a concept that merged action learning with self-development (Hurley & Cunningham, 1993). SML combines the notions of learners working together in small groups, or action sets, on real-life problems with the practice of learners setting their own learning agendas and assuming responsibility for their own learning. Although the origins of SML stem from a more individually focused approach to self-development, the emphasis is on strategic and proactive individual and organizational learning. The key elements in using the SML approach are learning contracts and the learning set (Gilligan, 1994; Peckham, 1995). It should be noted, however, that others have used the SML terminology to refer to "a self-motivated and self-directed process to learn, change, and improve" that is more consistent with the definition of SDL previously advanced in this article (Abbott & Dahmus, 1992, p. 58; Guglielmino & Guglielmino, 2001).

### **Influential Conceptions of Self-Directed Learning**

The literature base on SDL is expansive, and several comprehensive reviews have previously been conducted (see, e.g., Brockett et al., 2000;

Brookfield, 1984; Caffarella, 1993; Caffarella, & O'Donnell, 1987; Merriam, 2001; Merriam & Caffarella, 1991, 1999). In addition, several books have been written on this topic (see, e.g., Brockett & Hiemstra, 1991; Candy, 1991; Knowles, 1975; Straka, 2000).

The vast research terrain on SDL includes multiple descriptive studies that have examined the concept and prevalence of SDL (Livingstone, 1999; Penland, 1977; Tough, 1971, 1979, as cited in Merriam & Caffarella, 1999); studies that have verified that SDL activities or interests exist and studies that examine how learners engage in SDL and identify resources (Caffarella & O'Donnell, 1987); how perceptions about SDL differ among teachers and learners (Lunyk-Child et al., 2001); models of the process and instructional approaches (Brockett & Hiemstra, 1991; Garrison, 1997; Grow, 1991; Spear & Mocker, 1984); the personal attributes associated with SDL and competencies for SDL (Patterson, Crooks, & Lunyk-Child, 2002); and the development and testing of measurement instruments to assess readiness for SDL (Guglielmino, 1977) and initiative and persistence in continuing professional education (Oddi, 1986).

Researchers have also tried to link different variables with being self-directed in one's learning, including readiness for SDL, educational level, personality factors, learning style, creativity, life satisfaction, health promotion and wellness, and autonomy, which have often resulted in confusing and contradictory findings (Clardy, 2000; Merriam & Caffarella, 1999). More recently, research has examined the emotional and political aspects of SDL (Andruske, 2000; Rager, 2003). Instruments that assess what helps learners with SDL in specific situations (Pilling-Cormick, 1996) and measure SDL in the workplace have also been recently developed (Bartlett & Kotrlik, 1999).

In addition, with the growing interest in SDL in the workplace, some scholars have examined the effect of organizational climate on readiness for SDL (Ravid, 1987) and organizational factors that are conducive to SDL (Foucher & Brezot, 1997; Maurer & Tarulli, 1994). The connection between SDL and the learning organization concept (Cho, 2002; Confessore & Kops, 1998), readiness for SDL and occupational categories (Durr et al., 1996), and the types and occurrence of job-related SDL (Clardy, 2000) has also been examined.

Consequently, SDL has been characterized as a multifaceted concept. Therefore, Merriam and Caffarella's (1999) categorization of the SDL literature will be used as a framework to overview the influential conceptions of SDL that exist based on their comprehensive synthesis of research literature on SDL. Their categorization addresses the goals of SDL, the models that describe SDL as a process of learning and teaching, and SDL as a personal attribute of learners.

### **Goals of SDL**

The goals associated with SDL have typically been grouped into three broad categories that reflect the varying philosophical orientations often associated with them. However, more recently, Caffarella (2000) suggested that there are four goals that may motivate learners to engage in SDL. One goal for learners to engage in SDL includes the desire to learn specific content or acquire knowledge and skill. Another goal of SDL is to enhance the learners' abilities to be self-directed in their learning, which draws on a humanistic philosophy of learning. A fundamental aspect of this goal is that when adult educators are involved in the SDL process, their role becomes that of guide or facilitator. There are some scholars who are critical of this goal because the focus of the goal tends to be narrowly focused, primarily on instrumental learning and developing learners' capacities to be self-directed without attention on collective action or deeper questioning of the conditions that surround learning (Collins, 1995, 1996).

Other scholars advocate that the goal of SDL is to foster transformational learning (Brookfield, 1985; Mezirow, 1985) and acknowledge that critical reflection by the learner is central to the process. For Mezirow, "critical awareness of meaning and self-knowledge is a key dimension to self-directedness" (as cited in Garrison, 1997, p. 19). Last, grounded in critical pedagogy, another goal of SDL emanates from an emancipatory and social action perspective and is more focused on social and political action than on individual learning. Scholars advocating this goal acknowledge that learners must examine the social and political assumptions under which they learn and function and call for some form of collective action as an outcome of the learning (Collins, 1996; Hammond & Collins, 1991).

### **SDL as a Process of Learning and a Process of Teaching**

SDL is often viewed as a method of learning or a method of teaching (Percival, 1996). Several models of SDL have been developed in the literature to describe the process of SDL, and some have been advanced that examine SDL as a teaching process. Two approaches to the process of SDL that are considered to be linear in nature include Tough's (1971, 1979, as cited in Merriam & Caffarella, 1999) and Knowles' (1975) descriptions of SDL.

Tough's Canadian study on the learning projects of 66 people provided the first comprehensive description of SDL (Merriam & Caffarella, 1991, 1999). Tough defined a learning project as a deliberate effort to gain knowledge and skill or change in some way that involved a series of related episodes that added up to at least 7 hours. He found that the learners planned 70% of all learning pro-

jects and used 13 steps that represented key decision-making points about their self-planned learning. His 13 steps included:

1. deciding what detailed knowledge and skill to learn;
2. deciding the specific activities, methods, resources or equipment for learning;
3. deciding where to learn;
4. setting specific deadlines or intermediate targets;
5. deciding when to begin a learning episode;
6. deciding the pace at which to proceed during a learning episode;
7. estimating the current level of his knowledge and skill or his progress in gaining the desired knowledge and skill;
8. detecting any factor that has been hindering learning or discovering inefficient aspects of the current procedures;
9. obtaining the desired resources or equipment or reaching the desired place or resource;
10. preparing or adapting a room for learning or arranging certain other physical conditions in preparation for learning;
11. saving or obtaining the money necessary for the use of certain human or nonhuman resources;
12. finding time for the learning; and
13. taking steps to increase the motivation for certain learning episodes. (as cited in Merriam & Caffarella, 1999, p. 294)

Similarly, Knowles' (1975) description of SDL is comprised of six steps: (a) climate setting, (b) diagnosing learning needs, (c) formulating learning goals, (d) identifying human and material resources for learning, (e) choosing and implementing appropriate learning strategies, and (f) evaluating learning outcomes. Many of the steps in Knowles' descriptions of SDL overlap with Tough's.

In contrast to these linear perspectives, Spear and Mocker's (1984) qualitative analysis of 78 interviews of individuals engaged in SDL learning projects did not reveal evidence of preplanning in SDL experiences, which led them to conclude an "organizing circumstance" (p. 4) serves as the impetus for engaging in SDL. Following this triggering event, learners then select courses of action that typically occur fortuitously in their environments, often dictated by the circumstances, without a linear progression.

In addition to Spear and Mocker's (1984) conception, Cavaliere's interactive model (as cited in Merriam & Caffarella, 1999) describes both the stages of the learning process and the cognitive processes used throughout the learning project. In her case study of how the Wright Brothers learned how to fly, Cavaliere identified five stages of learning: (a) inquiring, (b) modeling, (c) experimenting and practicing, (d) theorizing and perfecting, and (e) actualizing. Within these five stages of learning, four repetitive cognitive processes occurred: (a) goal setting, (b) focusing, (c) persevering, and (d) reformulation (Merriam & Caffarella, 1999). Similarly, Danis (as cited

in Merriam & Caffarella, 1999) grounded her interactive model in the concept of self-regulated learning and identified major components and subcomponents of the learning cycle, drawn from the literatures on SDL, self-instruction, and learning and study strategies.

Merriam and Caffarella (1999) have acknowledged that studies have not been found that have tested the Danis model or Cavaliere's model; however, some other studies have reached similar conclusions to Spear and Mocker's (1984) findings regarding a triggering event.

The Personal Responsibility orientation (PRO) model was developed by Brockett and Hiemstra (1991) as a way to move beyond the conceptual confusion of SDL as an instructional process or as an "ideal state of the mature self-actualized learner" (Kasworm, 1983, as cited in Brockett & Hiemstra, p. 22). The model focuses on the notion of learner self-direction as a personality characteristic to reflect a learner's desire to assume responsibility for learning. The PRO model integrates an instructional process dimension and the learner self-direction dimension and regards the social context in which the learning occurs as important. In her review of the PRO model, Flannery (1993) acknowledged that, although it makes a contribution to the understanding of SDL, sociological and cultural issues related to self-direction did not receive adequate attention. Aside from Flannery's (1993) critical review, it does not appear that the PRO model has been tested (Merriam & Caffarella, 1999).

Furthermore, despite the integration of a personality characteristic, learner self-direction, in the PRO model, Garrison (1997) contended that a more comprehensive perspective is needed that integrates cognitive and metacognitive processes. Garrison introduced a conceptual model in which SDL is viewed from a collaborative constructivist perspective that integrates concepts of self-management, self-monitoring, and motivation but does not appear to have been tested.

From an instructional standpoint, two models have been offered that enable SDL to be incorporated into the teaching process in more formal settings. Grow (1991) and Hammond and Collins (as cited in Merriam & Caffarella, 1999) presented models that examine the role of teaching in SDL. Grow's 4 × 4 Staged Self-Directed Learning (SSDL) matrix draws on Hershey and Blanchard's (1988) situational leadership model to suggest that style of teaching should be matched to the learner's readiness. The model attempts to offer appropriate teaching methods (authority/coach, motivator/guide, facilitator, consultant/delegator) that match with a learner's degree of self-direction (dependent, interested, involved, self-directed). Although Grow has responded to several questions regarding this model, it does not appear that the model has been tested.

The critical SDL model offered by Hammond and Collins is a seven-step model that includes: (a) building cooperative learning climate; (b) analyz-

ing and critically reflecting on themselves and the social, economic, and political contexts in which they are situated; (c) generating competency profiles for themselves; (d) diagnosing their learning needs within the framework of both the personal and social context; (e) formulating socially and personally relevant learning goals that result in learning agreements; (f) implementing and managing their learning; and (g) reflecting on and evaluating their learning (as cited in Merriam & Caffarella, 1999, p. 305). A distinguishing aspect of the Hammond and Collins' model is the examination of social, political, and environmental contexts that affect learners and promotes the development of personally and socially relevant learning goals. Although this model is grounded in critical pedagogy, popular education, and participatory research, Merriam and Caffarella (1999) have found no research studies that have used this model as a conceptual framework.

### **Personal Attributes**

Another strand of inquiry in SDL relates to the notion of self-directedness as a personal attribute or characteristic of learners. Brockett and Hiemstra (1991) identified learner self-direction as a personality construct. They acknowledge that personal responsibility (i.e., learners assuming ownership for their own thoughts and actions) is the cornerstone of self-direction in learning. They recognize, however, that learners will possess varying degrees of willingness to accept responsibility for themselves as learners and that self-directedness occurs on a continuum.

Accordingly, considerable attention has been given to the concept of readiness as it relates to SDL. Guglielmino's (1977) Self-Directed Learning Readiness Scale (SDLRS) is an instrument that was designed to assess the degree to which individuals perceive themselves to possess attitudes and skills often associated with the notion of readiness, an internal state of psychological readiness for self-directed learning. Based on the Delphi technique, a factor analysis revealed eight factors: (a) openness to learning opportunities, (b) self-concept as an effective learner, (c) initiative and independence in learning, (d) informed acceptance of responsibility for one's own learning, (e) love of learning, (f) creativity, (g) future orientation, and (h) ability to use basic study and problem-solving skills. This instrument has been one of the most widely used and has generated controversy and criticism regarding issues of reliability and validity (see, e.g., Brockett & Hiemstra, 1991). Another instrument that assesses self-initiated learning and continuing professional education is the Oddi Continuing Learning Inventory (OCLI). Oddi (1986) identified characteristics related to initiative and perseverance in learning over time. Subsequent research has suggested that the three factors in the Oddi instrument (i.e., a general factor, one

related to ability to be self-regulating, and an avidity of reading) appear to be valid and replicable (Bartlett & Kotrlik, 1999).

In addition to readiness, the notion of autonomy in learning has been introduced by other researchers (Candy, 1991; Chene, 1983). Autonomous learners are generally thought to be independent, able to make choices and critical judgments, and have the capacity to articulate norms and limits of a learning society (Merriam & Caffarella, 1999). Candy has acknowledged that autonomy has personal and situational dimensions and may not always manifest itself in the learning situation (Brockett & Hiemstra, 1991). However, four variables appear to influence the extent to which learners exhibit autonomous behavior in learning situations: (a) technical skills related to the learning process, (b) familiarity with the subject matter, (c) sense of personal competence as a learner, and (d) commitment to learning at that particular point in time (Merriam & Caffarella, 1999). Moreover, other scholars are advocating that independence and autonomy may be cultural constructs reflective of SDL as it is practiced in North America and that interdependence may be a characteristic of self-directed learners in other cultures (Nah, 2000).

### **Benefits of Promoting SDL in the Workplace**

Many scholars acknowledge that promoting SDL in the workplace is a necessity because skills and knowledge have become perishable commodities, and employees must embrace continuous learning as a career-long process (Guglielmino & Murdick, 1997; London & Smither, 1999; Zemke, 1998). As organizations attempt to build more responsive and cost-effective learning infrastructures, flexible approaches to learning that incorporate technology and lessen the provision of traditional training have emerged that require learners to be more self-directed.

Furthermore, as organizations attempt to become learning organizations, building learning capability at the individual level becomes critical if group-level and organizational-level learning are to occur (Confessore & Kops, 1998). In short, Guglielmino and Guglielmino (2001) contended that the self-directed learner is the cornerstone of the learning organization. Similarly, Smith (2002) asserted that

there is considerable commercial value in encouraging employees to become effective self-directed learners such that they can develop and pursue their learning goals and outcomes that contribute to competitiveness without the need for all learning to occur when there is direct training by an instructor. (p. 111)

Ultimately, a commitment to self-learning and development benefits both learners and the organizations that employ them (Long & Morris, 1995). To date, some research has suggested that there are two types of payoffs from incorporat-

ing SDL within work organizations that include the link between SDL readiness scores, job performance scores, and job performance as well as significant savings in training costs (Guglielmino & Murdick, 1997). Furthermore, learners who are self-directed are more likely to share others' knowledge and build networks with others (Rowland & Volet, 1996). However, as Bierema (1996) acknowledged, "The ultimate challenge in organizations is to harness adult learners' propensity to be self-directed learners and not create barriers that prevent or discourage it" (p. 25).

### **Implications for Integrating SDL Into HRD Practice**

The SDL literature offers several models that can be used to guide SDL practice in more formalized settings, such as academic classrooms and within formal training programs. For example, Grow's (1991) SSDL model provides a framework that may assist teachers and trainers with helping learners to become more self-directed in their learning. The premise of the model is for the teacher or trainer to attempt to match the learner's stage of self-direction, and ultimately help prepare the learner to advance to higher stages, by acknowledging the different teaching styles and approaches that may be appropriate given the learner's degree of dependence or self-directedness. For example, for learners who are relatively dependent, a more traditional approach to instruction may be most appropriate; however, for learners who may be more self-directed, the role of the teacher shifts to one of guide, facilitator, or consultant.

Similarly, Hammond and Collins' (1991) seven-step model can be used within formal settings when the goal is to engage in the critical practice of SDL. For example, this model may enable learners in academic settings and formal training programs to take greater control of their learning process so that they are ultimately empowered to use their learning to improve the conditions under which they and others live and work. Several scholars have also articulated components of the teaching and learning process (e.g., assessing needs; setting goals; specifying learning content; pacing the learning; choosing the instructional methods, techniques, and devices; controlling the learning environment; promoting introspection, reflection, and critical thinking; instructor's/trainer's role; and evaluating the learning) that can be integrated into formal settings along with tools, techniques, and resources for SDL (e.g., planning tools, individual study techniques, personal reflection tools, individual skill development, group study techniques, and using the educative community) (Hiemstra, 2000; Hiemstra & Sisco, 1990; O'Donnell & Caffarella, 1998).

For example, the concept of a learning contract has been an SDL tool that has been used in formal settings to enable learners to assume more control of their learning. Learning contracts may also be a useful tool for learners in

the workplace as a map for self-learning and development in conjunction with performance plans (Caffarella, 2000). Furthermore, the use of learning logs as a tool for self-development can also be used in formal academic and training settings as well as informally to help learners become more aware of their learning styles and significant learning experiences (Barclay, 1996).

More recently, Dunlap and Grabinger (2003) have proposed five instructional features (i.e., student autonomy, responsibility, and intentionality; intrinsically motivating learning activities; enculturation; discourse and collaboration among learners; and reflection) and overview three teaching methodologies (i.e., problem-based learning, intentional learning environments, and cognitive apprenticeships) that employ these five instructional features to build capacities for self-direction, metacognitive awareness, and a disposition toward lifelong learning within more formalized settings. They have acknowledged that these capacities are critical for developing lifelong learning and contend that educators need to use teaching methodologies that develop these capacities.

Although these models and tools may be applicable within the context of more formalized academic settings, some of these approaches and strategies may not be feasible in workplace contexts. In fact, despite the recognized need for independence and self-directedness among learners, some research among British and Australian enterprises has shown that vocational learners in the workplace and institutional settings are not yet ready or well-prepared for these independent learning methods (Calder & McCollum, 1998, as cited in Smith, 2001; Sadler-Smith, Down, & Lean, 2000; Smith, 2001; Smith, Robertson, & Wakefield, 2002). Smith (2002) has acknowledged that

the development of an ability among workplace learners to effectively engage with self-directed learning has been observed by several writers (Edwards, 1995; Calder & McCollum, 1998; Morris-Baskett & Dixon, 1992; Robinson & Arthy, 1999) as an objective worthy of pursuit by organizations wishing to achieve knowledge and skill development for a competitive edge in a rapidly changing industrial context. However, the evidence that such training is not well supported in the workplace is disappointingly compelling. (p. 109)

Several strategies have been identified to enable organizations to more fully implement flexible learning approaches (London & Smither, 1999; Smith, 2002; Smith et al., 2002). Smith (2002; Smith et al., 2002) acknowledged that at the organizational level, clear training policies that indicate management support for flexible learning is critical along with the structures that provide support and development of human resource professionals' skills in supporting the development of SDL, the acquisition of knowledge and skill, and facilitation of new learning to be acquired in a community of practice. Smith and colleagues (2002) also conducted an empirical examination of the feasibilities of many of these strategies and acknowledge that the majority of the strategies identified are feasible for implementation.

Similarly, Confessore and Kops (1998) also acknowledged that SDL research has identified several organizational characteristics that self-directed learners and training experts prefer, which include:

1. tolerance for errors, support of experimentation and risk taking, and an emphasis on creativity and innovation;
2. the use of participative leadership style and delegation of responsibility to organizational members;
3. support for learning initiatives that are linked to the organization's goals and values;
4. encouragement of open communication and of information systems that provide for collaboration and teamwork and that use both internal and external learning resources; and
5. provision of opportunities and situations for individual learning. (p. 371)

Many of these environmental characteristics are consistent with the learning organization concept.

In addition, at the managerial and leadership levels, employees' managers and supervisors often influence many of the conditions that support self-development (Maurer & Tarulli, 1994). An immediate manager or supervisor often plays an important role in creating a learning environment that empowers self-development through encouraging employees' feelings of self-determination and personal initiative (London & Smither, 1999). Supervisors and managers also support and guide development needs by serving as coaches, mentors, and learning facilitators and providing multi-source feedback (Beattie, 2002; Ellinger & Bostrom, 1999; Ellinger, Ellinger, & Keller, 2003).

Last, another area warranting consideration to augment SDL involves the use of assessment tools. With the increasing focus on self-development, empowerment, and self-directed teamwork in the workplace, a high level of readiness for SDL learning is required among learners (Durr et al., 1996). Findings from Durr et al.'s study on SDL readiness among learners within various occupational categories at Motorola have revealed some useful approaches for improving practice. Using the SDLRS (Guglielmino, 1977) or Learning Profiles Questionnaire (LPQ) (see e.g., Confessore & Kops, 1998) as assessment tools may enable HRD professionals to better assist learners who score lower in readiness for SDL, or who have poor perceptions of themselves as self-directed learners, by providing developmental programs that overview the philosophy of SDL and focus on facilitating the acquisition of skills to enhance SDL. For learners scoring higher on the SDLRS or for those who have positive perceptions of themselves as self-directed learners, perhaps offering opportunities for coaching and supporting SDL and creating and executing learning projects may be appropriate. Finally, providing learning resources to learners to stimulate their SDL may be another way that human resource professionals can augment SDL within organizational settings.

## Implications for HRD Theory and Research

Adult education scholars have acknowledged that, despite the considerable attention that has been devoted to SDL in the field of adult education during the past 30 years, recently there has been an overall decline in interest and research on the topic (Brockett, 2000; Brockett et al., 1994, 2000; Merriam, 2001; Merriam & Caffarella, 1999; Rager, 2003). This trend is surprising given the increasing focus on self-development and flexible training and delivery approaches and HRD practitioners' interests in SDL as a research topic (Wentling, Brinkley, & Nelson, 1997).

Brockett (2000), however, has advocated that, instead of abandoning this line of inquiry, the challenge is "how to take the study of self-direction to a new level" (p. 543). Accordingly, he suggests four ways in which this can be accomplished: (a) update what is known about SDL through literature reviews, (b) research new ways of measuring self-directedness, (c) extend research approaches to include more qualitative approaches, and (d) promote dialogue about SDL among scholars researching in this area. Similarly, Merriam and Caffarella (1999) have acknowledged that existing models of SDL should be tested, that past recommendations for research be heeded, and that a variety of research paradigms should be used to study SDL, including interpretive, critical, and feminist approaches. In particular, Brookfield (2000) contends that "the political context, cultural contingency and social construction of SDL activities have generally been ignored" (p. 9) and advocates that SDL be reframed as a political concept.

Despite the current stagnation associated with the study of SDL, it is evident that more theory building and research on SDL is necessary to extend the existing base of literature. Merriam and Caffarella (1999; Merriam, 2001) have articulated a rich array of research questions to advance our understanding of SDL, and many of these questions are appropriate to research within the context of HRD.

Some scholars, however, are advocating that more research needs to be done specifically within business and industry settings to develop a better understanding of SDL in the workplace (Cho, 2002; Clardy, 2000; Confessore & Kops, 1998; Durr et al., 1996; Vann, 1996; Wentling et al., 1997). To augment research and theory building on this topic within the human resource development context, some future areas of research on SDL should examine the following:

- How pervasive is SDL in the changing world of work? How is SDL integrated within an organization's learning infrastructure? The recent development of an instrument that measures self-directed workplace learning (Bartlett & Kotrlik, 1999) may be a promising survey tool to quantitatively examine this issue.
- Is and how is SDL linked with organizational learning? Mumford (1996) has proposed that effective learning must be created and encouraged at the

individual, one-to-one level, and group learning if the fourth level, organizational learning, is to become operational. Case studies or other qualitative approaches may be most fruitful in examining individual SDL and its linkages to broader group and organizational learning.

- How do contextual factors influence or impede SDL? Caffarella and Merriam (2000) have acknowledged that contextual factors affect SDL and they identify two dimensions: the interactive and the structural. The interactive dimension relates to the learner interacting within a particular context, and the structural dimension relates to social and cultural factors that affect learning such as race, class, gender, ethnicity, power, and oppression. Studies examining contextual factors could be done using qualitative approaches.
- How does the process of SDL differ among varied organizational settings? Does SDL vary within industries? Do high-tech organizations require more of a commitment to SDL from their employees than low-tech organizations? Do learners in health care, governmental agencies, and nonprofit organizations experience SDL differently? Studies using qualitative and quantitative approaches would be appropriate to explore this issue.
- How is technology impacting SDL? With the advent of just-in-time approaches to training and learning mediated by technology (Brandenburg & Ellinger, 2003) and the increasing availability and accessibility of technology in many work organizations (Benson & Johnson, 2002), learners may have an array of learning resources available to them that may alter how they experience SDL. Quantitative and qualitative approaches could be used to examine the impact of technology on SDL.
- What are the cultural issues associated with SDL? Nah (2000) has suggested that “not every culture promotes independence and autonomy as virtues” (p. 18), and therefore studies that examine how learners engage in learning projects in other cultures are advocated. Cross-cultural and comparative research would enhance our understanding of SDL.
- What are the ethical issues associated with encouraging SDL among learners who may be uninterested, unwilling, or unable to engage in SDL in the context of their work organizations? Although self-direction is often conceived as a positive personality attribute, learners who have been more dependent and passive in their approaches to learning within their workplace settings may be disadvantaged and disenfranchised as they find their organizational cultures demanding more independent, self-managed approaches to learning. Such learners could be studied to explore the ethical implications of SDL under those changing organizational conditions.

Clardy (2000) has acknowledged that “changes in organizational capability and performance are ultimately mediated through employee learning” (p. 123), which is increasingly occurring through more informal and self-directed approaches. Therefore, perhaps research partnerships among academics from

various disciplines and practitioners from diverse organizational settings with SDL research interests will enable more holistic understandings to emerge about SDL, particularly as the notion of continuous lifelong learning is being increasingly embraced by organizations and society.

At the same time, however, as we proceed with SDL research endeavors, we should be mindful of Brookfield's (2000) contention that at the heart of SDL are issues of power and control and access to resources. Brookfield acknowledges that "who defines the boundaries of intellectual inquiry is always a political question . . . exercising self-direction inevitably requires certain conditions to be in place regarding access to resources, conditions that are essentially political in nature" (p. 16). These issues become even more critical in the changing organizational landscapes espousing learning orientations and flexible delivery structures.

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