Becoming an Autonomous Learner: Building the Skills of Self-Directed Learning

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Abstract

The COVD-19 pandemic caused a shift in education at all levels. As school moved to online and virtual environments, educators across the globe had to assess and cultivate a sense of autonomy in learners that worked from home. Schools are beginning to re-open for in-person learning, but the conversations about learner agency and autonomy are here to stay. This article uses a meta-analysis of research literature in the field of self-directed learning. Attention is paid to the characteristics of a self-directed learner as articulated by Guglielmino's (1978) Self-Directed Learning Readiness Scale (SDLRS) and the Learner Autonomy Profile (LAP) created by Confessore and Confessore (1994), Meyer (2001), Carr (1999), Derrick (2001), and Ponton (1999). The goal of this article is to advance the argument that self-directed learning (SDL) is a transformative learning pathway open to all and that the skills of SDL are learnable and can be developed over time. This article is a survey in research over the past few decades, particularly of research around creating instrumentation to assess a learner's self-directedness. A deeper understanding of the characteristics of SDL will equip educators to better navigate the changing landscape of education—from other-directed school experiences to self-directed (potentially virtual and asynchronous) learning.

Becoming an Autonomous Learner: Building the Skills of Self-Directed Learning

In 2018, I co-founded a self-directed learning environment in Georgia. The school, a prek–12 micro-school of about 135 learners, does not focus on *teaching*, but rather on equipping each learner with the skills to learn for themselves. Whenever I tell someone about the school, the usual replies range between *"Wow, what an innovative way to do education!"* and *"But does that really work?"* These replies and the underlying assumptions that led to them—that the traditional, teacher-directed approach is obviously the way to do education—served as a sort of catalyst for this research project. Unspoken in these assumptions is that alternative learning approaches may work for some learners—those who are already well-behaved, self-regulated, responsible students—but this pedagogy is not for everyone. Most students, these assumptions hold, need to be told what to do and how to do it.

The COVID-19 pandemic has given further credence to these assumptions. Some learners were able to successfully transition to remote learning environments while others struggled. Why was there such disparity in learner success in remote environments? There are many answers. The move to remote learning highlighted many of the inequities that exist in the education system. Not all learners and school districts had the technological infrastructure to successfully implement virtual learning, so the pandemic disproportionately affected rural districts, indigenous learners, and communities of color. In this way, the pandemic has prompted conversation into how to create more equitable learning environments. Beneath this conversation, though, lay the wider assumptions of learning already mentioned: some learners are self-directed learners, others are not. The purpose of this article is to critically examine these assumptions.

The claim made in this article is that self-directed learning is a transformational learning pathway open to all learners. That is not to say that all learners *will* become self-directed learners, but rather all learners possess the capacity to build the skills of self-directedness. To argue this claim, this article will survey research literature from the last few decades in the field of self-directed learning (SDL) that has sought to explore the characteristics and skills required to be a self-directed learner. This article is a meta-analysis of the literature seeking to answer the following questions: What are the characteristics of SDL? How have these characteristics been defined and assessed? Are these characteristics fixed traits, or can they be learned over time? To answer those questions, specific attention is paid to researchers who sought to develop quantitative instrumentation around the skills of SDL.

Defining SDL

Multiple terms have been used to describe this education theory, like *child-centered*, *learner-led*, *inquiry-based* and *alternative/progressive education*. There have also been movements—*free schools, unschooling*, *deschooling*, *democratic schooling*—and models, like Montessori and Waldorf, that claim some semblance of this stance as education for the individual and for society. Van der Walt (2019) pointed to the confusion around the definition of *self-directed learning*. This confusion around the ambiguity of SDL was mentioned early by Brockett and Hiemstra (1991), who recommended instead the phrase *self-direction in learning.* For the purpose of this study, the term *self-directed learning* will be employed as an umbrella term tangentially connected to these broad (and sometimes conflicting) theories and models. The rationale is to use consistent terminology throughout the article, focus on the role of the learner in the education experience as self-directed rather than other-directed, and connect to current research in the field of self-directed education.

The most recognized definition of *self-directed learning* (SDL) comes from adult education theorist Malcolm Knowles (1975) who defined it 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)

This is the definition that will be utilized for this article, though further clarifications are needed. Learning according to Knowles is seen as a "process." It is an unfolding action of experience and reflection. It is not tied to a course block or an activity dictated by a lesson plan. Also, what differentiates SDL from other pedagogical approaches is the positioning of the learner as the *agentic center* of this process. The learner takes the initiative in their own learning. That is not to say that there cannot exist prompts or provocations from *without*—from the teacher, environment, or situation—that draw the learner forward, but the decision to move into the experience, to *initiate the process*, rests solely with the individual. The learning cannot be forced. Also notice the inclusion of "with or without the help of others" in the definition. To Knowles, SDL can be solely an individual effort, or it can incorporate the guidance of a mentor or the help of partners. One could teach themselves the art of woodworking, or they could apprentice with a master. It is the opinion of this author, though, that education always exists within relationships.[1] This is in line with other SDL theorists (Candy, 1991; Peters & Gray, 2005). Knowles's definition also speaks of the individual's responsibility in identifying appropriate resources, implementing strategies, and participating in the evaluation of their work. All of this exists on a spectrum—some SDL environments may give learners complete control on every step of this process, others may have more structure (a type of *freedom within limits*). For the purpose of this article, SDL is viewed as a process where the initiative and some level of responsibility rests with the learner.

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[1] To use the woodworker example: even if a person were to learn this craft *on their own*, they would be dependent on the knowledge, tools, and processes developed by other people over the course of centuries and passed on to the current learner in some form.

Ready to Learn: Cultivating the Skills of SDL

Long and Agyekum (1983) argued that "there are some rather clearly identifiable behaviors and abilities associated with self-direction in learning. They include intelligence, independence, confidence, persistence, initiative, creativity, ability to critically evaluate one's self, patience, desire to learn and task orientation" (p. 78). They go on to identify self-directed learning as possessing "tolerance of ambiguity, ability to discover new approaches, prior success with independent learning, preference for working alone, knowledge of variety of resources, ability to plan, [and the] ability to carry out a plan" (p. 78).

Over the past decades, researchers have sought to identify and assess for such SDL skills. It should be noted here that this strand of SDL research derives from positivist traditions that seek through quasi-experimental research design to view learning as a science that can be parsed into distinct, defined variables. That conflicts with the philosophical viewpoints of this researcher, who sees such attempts at reductionism as potentially problematic. However, this research tradition has provided valuable insights into the innerworkings of SDL and helps advance the basic argument of this article that the skills of SDL are not fixed personality traits, but rather learnable. Also, this era of SDL research was influential in moving SDL from a niche education philosophy to a respected subunit of education research. This is due in large part to the influence that quantitative, positivistic research has in the field of education research. Perhaps the most impactful development from this strand of research came from Guglielmino (1978), who developed the Self-Directed Learning Readiness Scale (SDLRS) to provide quantitative measurement to these rather abstract ideas of motivation, initiative, and persistence. Her work led her to identify the following characteristics of self-directed learners:

> A highly self-directed learner, based on the survey results, is one who exhibits initiatives, independence, and persistence in learning; one who accepts responsibility for his or her own learning and views problems as challenges, not obstacles; one who is capable of self-discipline and has a high degree of curiosity; one who has a strong desire to learn or change and is self-confident; one who is able to use basic study skills, organize his or her time and set a pace for learning, and to develop a plan for completing work; one who enjoys learning and has a tendency to be goal oriented. (p 73)

The SDLRS is an instrument that gauges these characteristics in an individual and postulates whether they are "ready" to take on their own learning. The question, then, is whether these characteristics are fixed traits that an individual either does or does not possess, or whether, instead, these traits are malleable, able to be cultivated in any learner. This led to the creation of even more quantitative instruments.

Confessore and Confessore (1994), along with Confessore and Park (2004), Meyer (2001), Carr (1999), Ponton (1999), and Derrick (2001), developed a battery of instruments used to build a Learner Autonomy Profile (LAP).[2] The researchers identified four key constructs in building the LAP: 1.) a desire to learn, 2.) learner resourcefulness, 3.) learner initiative, and 4.) learner persistence. Each of these constructs is made up of three to seven components. A discussion of these constructs and components informs the discussion on the skills of SDL and whether or not these skills are fixed. Each of these constructs are analyzed in turn. It should be noted that the argument in this article is not that concepts like someone's *desire to learn* or *learner resourcefulness* can truly be measured. Rather, the aim is to address how these concepts have been discussed in the research literature and to further the claim that SDL is a transformative learning pathway open to anyone, not just those who exhibit certain prerequisites.

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[2] This is a quantitative instrument, but the following discussion will purposefully omit specifics of numerical measurements. The goal in this section is to look at how SDL skills are theorized, categorized, and defined. For greater understanding of the instrumentation, read the work of Confessore and Park (2004), Meyer (2001), Derrick (2001), Ponton (1999), and Carr (1999).

Desire to Learn

How does one develop a desire to learn? Jean Jacques Rousseau (2018) argued that "present interest is the motive power, the only motive power that takes us far and safely" (p. 81). For Rousseau, motivation had to be intrinsic, stemming from some deep interest, some desire to learn. Researchers have sought to drill down further on this desire. An advisee of Confessore's, Meyer (2001) broke down an individual's desire to learn into the following components:

1. *Circumstances*: Our perceptions of who we are and our place in this world. These are beliefs an individual inherits from family, environment, and life experiences.
2. *Expression*: A person's ability to make themselves known and articulate their own thoughts, goals, and needs.
3. *Group Identity*: One's place within a group (family unit, work group, or society at large). A person's belief that they have skills and talents that are productive to the group as whole impact their desire to learn.
4. *Growth and Balance*: Similar to Aristotle's *eudemonia,* this is the ability to make wise, informed decisions based on the options available. This trait is developed through trial and adversity.
5. *Love Issues*: One's ability to experience peace, serenity, and power simultaneously.
6. *Communication Skills*: The ability to create spaces of open communication, places where one can be one's self while also welcoming others to give and share.
7. *Change Skills:* One's ability to adapt to new problems that arise.

This is a rather interesting take on the concept of *desire to learn*. Meyer's (2001) components are more accurately seen as background, experience, or context—the things that individuals gain from their environments and familial interactions that shape their own concepts of freedom, power, and change. Park and Confessore (2002) argued that Meyer's formulation of *desire to learn* should rather be seen as "precursors to the development of intentions related to learning" (p. 289). This conceptualization builds on Bandura's (1977, 1997) concept of self-efficacy, where motivation is derived from an individual's belief and confidence in their own abilities.

Bandura (1977) argued that there were four main sources of influence that affected an individual's sense of self-efficacy. The first is past experience, or what Bandura terms *mastery experiences*. Past failures and/or successes are, in Bandura's view, the most influential sources of whether an individual feels confident in their ability to accomplish a similar task in the future. The second source of influence is *vicarious experiences*—examples set by friends, peers, siblings, and others. People can build (or lose) confidence in themselves by witnessing the successes (or failures) of others. The third area of influence is *social persuasion.* The encouragement or discouragement that comes from parents, teachers, or peers impacts a person's sense of self-efficacy. The final influencing factor identified by Bandura was a person's *emotional state*. An individual's mood, as well as propensity for depression or anxiety, greatly influences their sense of self-efficacy.

Bandura's concept of self-efficacy led to his development of Social Cognitive Theory (SCT), which grew out of his earlier work in Social Learning Theory (SLT). With SCT, Bandura (1985) posited a "triadic reciprocal determinism" in regard to human behavior (p. 1). Human activity is influenced by the triadic interplay of environment, cognition, and behavior. What people believe about themselves and their abilities (cognition) is shaped by their social context, experiences, and relationships (environment). This impacts their choices and actions (behavior), which in turn shape their beliefs about themselves and their abilities, which in turn influences their environment and social relationships.

For Bandura, it is possible to change one's sense of self-efficacy by intervening in the triadic interplay of environment, behavior, and cognition. If someone is lacking in self-confidence toward a task, an environmental change (social pressures in the form of encouragement and/or vicarious experiences in the form of observing others succeed at the task) may influence behavior (one's choices and actions) which would then change one's view of self and ability (cognition). Bandura's SCT was further

developed by Lent et al. (1994) into Social Career Cognitive Theory (SCCT) in an effort to understand why people have the interests that they do and make the career choices they make.

SCCT posited that there are five determinants to a person's interest, goals, and actions. There are *person inputs*, these are the things one is born into the world with that they neither choose nor control. (i.e. race, gender, ableness). Then there are *background environmental influences*, the socio-cultural contexts of one's own situatedness (i.e. family contexts, economic status, culture). An individual has little to no control of their *person inputs* and *background environmental influences.* Then there are the *learning experiences* a person encounters, both in formal and informal learning settings. These learning experiences shape one's *self-efficacy* (what a person thinks they are capable of) and their *outcome expectations* (what will happen if they fail or succeed). The interplay between *learning experiences, self-efficacy,* and *outcome expectations* influences the interests one has, the goals they set, and the actions they take. According to Lent et al. (1994), a change in a person's *learning experiences, self-efficacy,* and/or *outcome expectations* will then directly influence their interests, goals, and actions. They argue that it is possible to undergo new or different learning experiences, change one's sense of self-efficacy, and alter one's outcome expectations.

Meyer's (2001) instrument that measures one's *desire to learn* looked at precursors to motivation and intentional action. Bandura (1977, 1985, 1989, 1997) has argued that these factors, even the environmental influencers like familial interactions and social context, are not static determinants. Lent et al. (1994) have argued that it is possible for a person to change the interests they have, the goals they set, and the actions they take by altering their learning experiences, their belief in their own capabilities, and their predictions of outcomes. Self-efficacy and a person's desire to learn, therefore, can be built and shaped over time. It is not a pre-requisite that a learner enters into an SDL space already possessing motivation toward self-directedness. These skills can be developed. Research in the fields of psychology and neuroscience has also shown that a person's motivation to learn is greatly impacted by whether or not they have had key needs met, like feelings of safety, continuity, competence, and meaning (Deci & Flaste, 1996; Deci & Ryan, 2000; Hammond, 2014; Raab, 2017). In order for a learner, then, to find motivation and move toward action, care must be taken to cultivate an environment and levy resources to meet these needs and tackle chronic stressors like scarcity, identity threats, and shame (Brown, 2015; Csikszentmihalyi, 1979, 2008; Mullainathan & Shafir, 2014; Raab, 2017; Sandi et al., 2001).

Learner Resourcefulness

After desire to learn, the second category of Confessore and Park's (2004) Learner Autonomy Profile (LAP) was *learner resourcefulness.* Carr (1999) developed the following components of learner resourcefulness for instrumental measurement in creating the LAP:

1. *Learner Priority* – How likely is the learner to choose learning over another activity?
2. *Deferred Gratification* – How likely is the learner to delay gratification by choosing a learning activity against a more pleasurable activity?
3. *Resolving Conflict* – How likely is the learner to prioritize a learning activity when it conflicts with another activity?
4. *Future Orientation* – How aware is the learner of future outcomes or benefits of the learning activity?
5. *Planning* – What preparations has the learner made that will influence a successful outcome of their learning project?
6. *Evaluating Alternatives* – Has the learner identified other alternatives to their current strategy and weighed their merit?
7. *Anticipating Consequences* – How aware is the learner of the consequences of their actions and how does that influence their learning project?

This builds off of Rosenbaum's (1989) work on *learned resourcefulness,* or one's ability to develop self-control strategies. Rosenbaum identified three types of self-regulation. The first is a biological function,

maintaining homeostasis in one's mind and body through automatic and unconscious activity. The second is *redressive* self-control, referring to one's ability to return to normal functions after a disruption. The third is *reformative* self-control, which is an individual's ability to break destructive or ineffective habits and create new ones. According to Rosenbaum, a person can develop skills of redressive and reformative self-control, allowing individuals to cope with stress (by building redressive self-control) or develop healthier, more effective habits (reformative self-control). Together, building this skill set is what Rosenbaum called *learned resourcefulness*.

Ponton, Carr, and Derrick (2004) referred to *resourcefulness* as well as the other categories tested in the LAP, *initiative* and *perseverance,* as "conative factors" because "they represent intentional behaviors based upon the presence of motivation and self-efficacy" (p. 62). These researchers argue that, in developing learner autonomy one begins with a desire to learn (which they refer to as a combination of motivation and self-efficacy), then develops the skills of resourcefulness and self-regulation. From there, the next stage of growing into an autonomous learner is building the capacities that the LAP puts under the umbrella of *initiative.*

Learner Initiative

Ponton (1999) looked at how learner initiative influences SDL. He identified the following components of *leaner initiative* and developed the instrument to measure these qualities in the LAP:

1. *Goal Directedness* – The ability of a learner to set long- and short-term goals, measure growth against those goals, and revise goals as needed.
2. *Action-Orientation* – The ability of a learner to quickly implement a learning plan. Confessore and Park (2004) argued that "action- orientation is facilitated when the learner is able to perceive the presence of opportunity, time, importance, urgency, and/or means in planned learning activities" (p. 46).
3. *Overcoming Obstacles* – The ability of a learner to persist with a learning activity in the face of obstacles.
4. *Active Approach* – The ability of the learner to realize their own responsibility and agency in overcoming obstacles in their learning rather than waiting on help from other.
5. *Self-Starting* – The ability of the learner to initiative (or resume after a break) the learning activity.

Where does this initiative come from? Spear and Mocker (1981) surveyed triggering events of SDL and found that initiative is usually contextual, provided by the environment. An individual needs to learn something for some reason, and therefore they initiate the learning process. Long (1989), however, argued that there was a strong psychological link for SDL, that the initiative to learn came from within. Combining these ideas, the claim can be made that *initiative* has both internal and external qualities. A person may possess some sort of *drive*, or innate motivation to undertake a learning task. Another possibility is that the invitation comes from an external source: a problem to solve, a job skill to master, or a treasure to seek. In either case, the subskills of learner initiative are habits that can be formed through strategic practice.

Learner Persistence

Derrick (2001) analyzed the concept of *learner persistence*, or the ability to stay with a learning project from initiation to completion. She identified the following components of learner persistence:

1. *Volition* – An individual's will to learn and their ability to stay committed to learning through distraction and discouragement. Confessore and Park (2004) argued that volition "can be characterized as the mediating force between one's intention to learn and one's motivation to learn," (p. 47).

2. *Self-Regulation* – The learner's ability to orient their thoughts, feelings, and actions toward their learning goals.
3. *Goal-Maintenance* – The ability of the learner to set goals that engage and motivate them to learn and to revise goals that are ineffective in accomplishing their learning projects.

While Ponton (1999) included *goal directedness* in his instrument in building the LAP, Derrick's criterion of *goal-maintenance* is aimed at measuring an individual's ability to persevere toward accomplishing a goal.

Bringing It Together

These four categories—desire to learn, learner resourcefulness, learner initiative, and learner persistence—compose the Learner Autonomous Profile and show that the skills of SDL can be developed over time. These researchers view these SDL skills through the lens of development, meaning that each category composes skills that a learner must master before moving to the next stage. Ponton, Carr, and Derrick (2004) found that individuals who move in a linear progression in their skill development from *desire to learn* to *resourcefulness* to *initiative* then to *persistence* are more likely to be autonomous learners. Individuals who try a direct path from *desire* (which includes the subsets of motivation and self-efficacy) directly to the skills of *learner persistence* listed out above are more likely to struggle in their ability to autonomously complete their learning projects. In their work, Ponton, Carr, and Derrick identified a causal pathway that moves from desire > resourcefulness > initiative > persistence. They argued that learners need to build capacity in motivation and self-efficacy before they effectively develop their learned resourcefulness, and that the subset of skills that comprise *learner initiative* serve as a mediating factor for a learner to develop the skills and habits identified in *learner persistence*.

Ponton and Carr (1999) draw a distinction between a *learner's self-directedness* and *self-directed learning*. Self-directedness refers to a learner's thoughts, feelings, and affectations toward learning, which manifest themselves as motivation toward learning and self-efficacy beliefs (see *desire to learn* discussion above). This self-directedness must be cultivated before the subsequent skills of self-directed learning (see *learner resourcefulness, learner initiative,* and *learner persistence* discussions above) can mature.

Conclusion

Instruments like the LAP and SDLRS provide insights into the skills that comprise SDL and clearly show pathways that learners can take to grow in their self-directedness. Educators can use this research to help design experiences that empower learners to cultivate the skills of SDL over time, which is to say that becoming self-directed is a process of transformative learning. The journey to self-directedness is challenging and requires a lot of *unlearning*. Many people have spent large portions of their lives being conditioned to be other-directed learners. Taking the reins of one's own learning can be fear-inducing. Many learners (and many facilitators of learning) may question whether or not SDL is for them. The research surveyed in this article argues that the skills of SDL are *learnable*. Each of us has the potentiality to be a self-directed learner. It just takes the right combination of learner choice, environmental supports, time, and patience.

That being the case, there are still critiques of this quantitative research that must be considered. The first is to question whether or not SDL can actually be divided into such discrete skills as those outlined in this article. This overly scientific approach seeks to remove the messiness that is inherent in SDL, which is problematic. The *messiness*—the intersection between a learner's own learning journey, that of their peers, and the learning environment itself—is actually the place where true self-direction happens. To consider this process a *ladder of skills* to climb is to oversimplify a complicated process. The next major critique lies in the demographic breakdown of participants in these studies. These instruments were designed for adult learners and participants tended to be white and middle class. How would these instruments perform with younger, more diverse learners? How do cultural expectations play into the

development of the SDL skills as listed above? A lot of work is being done to address these questions by scholars in the field, but additional research is needed.

       That being said, the COVID-19 pandemic and its impact on education highlighted the importance of developing skills of self-directedness in all learners. As schooling moved to remote environments, educators at all levels had to grapple with how to empower students to take more ownership and responsibility of their education. The research surveyed in this article shows that self-directedness is a set of learnable traits. To cultivate these skills in learners, educators will need to transform learning design to guide learners through the process. First, learners must build their capacity to desire learning (which includes building up their own sense of self-efficacy). Next, they must grow in their resourcefulness to be self-directed learners. Then, they must grow in their ability to take initiative. Finally, learners must develop the skills of persistence, the set of learned habits that enable learners to see a project through to completion.

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