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A Sociocognitive Discussion of Learning Resource Selection in Self-Directed Learning

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Abstract

An essential feature of social cognitive theory is its use of reciprocal determinism as a lens to understand any domain of human functioning. In this conception of personal agency, human development and activity is the result of the interaction of three constituent factors: person, behavior, and environment. One particular domain of functioning is self-directed learning that describes the process of an individual learner who acts as an agent to create and direct all aspects of a learning activity, which includes the critical function of selecting learning resources (i.e., critical because learning quality is the direct result of such choices). The purpose of this article is to use this sociocognitive model of reciprocal determinism as an interpretive framework for discussing how self-directed learners select learning resources.

Keywords: self-directed learning, social cognitive theory, learning resources

1. Introduction

Social cognitive theory adopts an agentic view of human functioning in which people exert intentional, proactive influence on personally-chosen trajectories (Bandura, 1986). In this conception of purposeful action, humans decide life pursuits that satisfy personal values (i.e., motivational considerations via forethought), intentionally select or create activities that support such pursuits based upon percepts of capability (i.e., self-efficacy considerations), react to self-developed pursuits via engagement, and reflect upon the intended and unintended consequences in order to evaluate current activities as well as inform future decisions regarding new activities (Bandura, 1997, 2006). One such activity is self-directed learning (SDL) that has increased in importance both as an activity and, thus, as a focus of research in the present age of expanding information (Ponton, 2016a).

Ponton (2016a) described SDL as an individual deciding why they need to learn (learning need), what they need to learn (learning topic), how to learn (creating a learning activity), if they have learned (evaluation), and how to move forward afterward (revision or conclusion of the learning activity). This is consistent with the International Society for Self-Directed Learning's (2021) definition that reads "self-directed learning is an intentional learning process that is created and evaluated by the learner" ("Self-Directed Learning" section). An essential feature of this conceptualization is that the self-directed learner exerts personal agency—that is, acts intentionally—by individually creating the learning activity, which is conceptually separable from (a) working alone to select a learning activity created and perhaps directed by someone else (e.g., taking a course designed and taught by an instructor) or (b) working with others to either select an existing learning activity or create, as a group, a new learning activity (Ponton, 2016a, 2021). As such, it is the individual learner who works alone to create and manage all aspects of the SDL activity and does not rely on proxy or group agency in activity selection, creation, or management.

As a point of theoretical clarity, the role of the individual in SDL does not mean that learning must occur in social isolation but rather merely emphasizes that the individual self-directed learner is the one who exerts total control over the learning activity. If a self-directed learner creates a learning activity that other learners participate in without these other learners exerting any control—that is, direction—of the topic, design, evaluation, and revision (if needed) of the self-directed learner's learning, it is still a SDL activity for the individual self-directed learner. The defining characteristic of SDL is that it is the *self* (i.e., a single agent) who is *directing* all aspects of the *learning* (Ponton, 2016a). Historically, SDL scholars (e.g., Bouchard, 1994; Brockett, 1985; Candy, 1990; Chene, 1983; Confessore & Confessore, 1994; Garrison, 1989; Guglielmino, 1977; Hiemstra, 1994; Jarvis, 1992; Knowles, 1975; Long, 1989; Mezirow, 1985; Redding & Aagaard, 1992) have immersed perspectives into their theorizing consistent with agency theory such as control and choice; thus, this more recent refinement of defining SDL with a particular focus on the individual mode of personal agency to create a learning activity continues this historical dialogue by providing a theoretical framework consistent with agency theory as described by Bandura (2006; cf. Ponton, 2016a) under the broader tenets of social cognitive theory (Bandura, 1986; cf. Ponton & Carr, 2012; Ponton & Rhea, 2006).

The COVID-19 pandemic has disrupted education at all levels (Collier, 2021) by moving many instructional platforms from face-to-face to symbolic environments that include televised and online delivery systems. As such, this transformation has required a greater degree of personal agency to work in self-regulatory ways by students and even faculty in learning to learn from (i.e., the student role) as well as create and manage (i.e., the faculty role) new instructional paradigms with little transition time. This has caused education to change at a revolutionary time scale rather than an evolutionary one; however, this "change" is likely fleeting in that many in education prefer newly adopted paradigms to be merely temporary, stopgap measures before going back to prepandemic instructional designs.

Instead of simply moving back to previous methods of teaching and learning, Boyer (2020) argued that we have an "opportunity as a community to engage in serious dialogue about what this situation means for learners who now must be agentic, facilitators of knowledge … [Let us] rebuild the learning capital that will be required to bring us to the future" (p. v). Ponton (2021) asserted that a major purpose of education is to develop students into agentic learners who upon graduation are able to pursue myriad personal and professional goals that depend upon lifelong learning. As Bandura (1997) stated,

> development of capabilities for self-directedness enables individuals not only to continue their intellectual growth beyond their formal education but to advance the nature and quality of their life pursuits. Changing realities are placing a premium on the capability for self-directed learning throughout the life span. The rapid pace of technological change and the accelerated growth of knowledge require continual upgrading of competencies if people are to survive and prosper…. Self-development with age partly determines whether the expanded life span is lived self-fulfillingly or apathetically. (p. 227)

Morris (2019) described SDL as "a fundamental competence for adults living in our modern world, where social contextual conditions are changing rapidly, especially in a digital age" (p. 633). Even outside formal education, there is burgeoning availability of symbolic resources that provide learning information, which includes misinformation (i.e., inaccurate) and disinformation (i.e., purposefully misguiding). In this regard, the dialogue proposed by Boyer should consider the important goal in education of developing competent self-directed learners—that is, learners who can critically evaluate and choose valid sources of information—and why and how education can accomplish this goal so that students are better prepared for life outside of formal education and graduates are better prepared for life after such education.

Ponton (2021) offered a teaching strategy based upon a model of agentic learning of which SDL is one manifestation. With SDL, the learner must decide the resources to learn from, and this selection process plays a vital role in the quality of subsequent learning. The purpose of this article is to discuss the process of learning resource selection through the lens of social cognitive theory's model of reciprocal determinism (Bandura, 1986). This conceptual framework will not only enlighten this critical aspect of SDL—learning is only as good as the resources being learned from—but also inform educators interested in developing competent learner self-directedness among students.

1.1 Social Cognitive Theory – Triadic Reciprocal Determinism

Historically there have been three main perspectives to conceptualize human functioning: mechanical, autonomous, and emergent interactive agency (Bandura, 1989). The mechanical perspective describes behaviorism that attempts to explain human functioning based upon either a unidirectional model in which the environment stimulates behavior or a bidirectional model in which behavior elicits an environmental response that then stimulates subsequent behavior; however, in either case, the person's characteristics—cognitive, affective, conative, biological, and physiological—play no determinative role in this process. In contrast, the autonomous perspective coincides with cognitivism that attempts to explain human functioning—with similar unidirectional or bidirectional models—based upon interactions between the person and behaviors without any determinative influence of the environment. (Note: Current theorizing in autonomous learning does not adopt the autonomous perspective of agency that discounts environmental influences; Ponton & Carr, 2012.)

Social cognitive theory rejects radical behaviorism and cognitivism (Bandura, 1986) and, instead, describes human functioning as determined by the interaction of all three factors of person, behavior, and environment. This model of emergent interactive agency recognizes that an understanding of human functioning in any domain requires an understanding of how all three factors interact. Triadic reciprocal determinism characterizes the conceptual framework that human functioning is determined by this three-factor reciprocity of influence (see Figure 1).

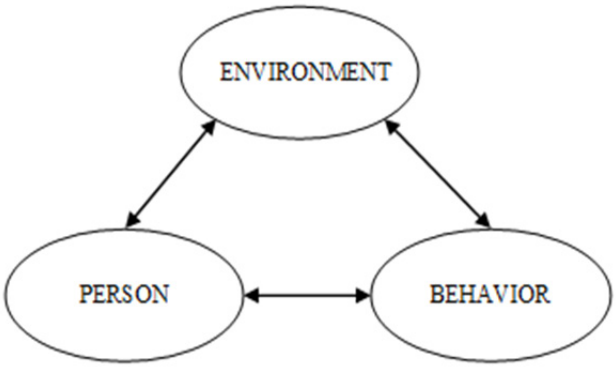

Figure 1. A Model of the Three Interacting Determinants Used to Describe Human Functioning (Bandura, 1986, p. 24)

The selection of learning resources by the self-directed learner is a specific domain of human functioning. As such, the sociocognitive conceptual framework of triadic reciprocal determinism will be used to discuss this SDL process.

2. Discussion

The ensuing discussion will use the model presented in Figure 1 for the following attributions: (a) *person* refers to the individual self-directed learner, (b) *behavior* refers to the selection of

learning resources, and (c) *environment* refers to everything external to the person. As the model offers six distinct paths of influence, each will be discussed separately (the arrows in the headings represent the direction of influence).

2.1 Person → Behavior Interaction

This interaction describes how personological factors influence the selection of learning resources. At the most rudimentary level, a person's intended topic of learning will influence the choice of resources (e.g., an interest to learn more about pyramids will lead to selecting materials related to pyramids); however, as there are often a multitude of resource options, a person's beliefs, attitudes, learning skills, and learning habits influence resource choice as well.

Personological factors influence subjective determinations of importance, urgency, time, opportunity, and means to learn (cf. Blankenship, 1985) that influence resource selection; for example, desired learning that is deemed urgently important may lead to selecting learning resources that are quickly and readily available. In addition, the availability of resources that supports the means of learning may be limited by an individual's lack of understanding of actual options; thus, availability is a subjective determination. Moreover, an individual's limited understanding can also affect what resources they perceive as relevant to the desired learning, unknowingly omitting resources that are needed for full understanding; an occurrence commonly referred to as the *relevance paradox*. The paradox in this situation is that the resource seeker cannot understand the relevance of the information until acquired but neglects to acquire it because the learner does not perceive its relevance.

Beliefs about resources influence attitudes toward them (cf. Fishbein & Ajzen, 1975) and, thus, the means of selection. Such beliefs do not have to be objectively true; rather, subjective beliefs lead to subjective attitudes that create biases for and against various resources. Ideally, a learner is equipped with the skill to differentiate accurate sources of information from inaccurate ones and has the habit of utilizing this skill; however, the unskilled learner may choose learning resources based upon subjective attitudes toward them rather than objective evaluations of credibility.

Note also that a subjective attitude is formed by aggregated beliefs that may have little to do with the topic of the intended learning. For example, there are numerous people who provide commentary on various topics in market-driven symbolic environments (e.g., hosts of television programs or podcasts); thus, a learner who enjoys ideological congruence with a particular pundit (which is part of the learner's belief structure) may choose this person as a learning resource for myriad topics. In this manner, the learner interprets ideological agreement as credibility that is then generalized to an extent that likely is not objectively tenable for a given topic. Entertainers may also be deemed as credible sources by their fans for information well outside their professions.

Another manner in which attitudes influence resource selection occurs when selections are made based upon support for preconceived notions or one's rationalizations. As examples, conspiracy theorists seek information to confirm their theories, morally responsible people

seek information to validate their uprightness, and socially harmful persons seek information to facilitate "moral disengagement" (Bandura et al., 1996, p. 364) thereby avoiding self-sanctions. Thus, resource selection is not made with the intent to inform objective learning but rather to confirm one's subjective positions.

Learning habits can also influence resource selection even if the skill to differentiate accurate from inaccurate sources of information exists. For example, highly-skilled learners who have the habit of learning from webpages of unevaluated credibility threaten their development and accomplishments.

Self-efficacy—a personal appraisal of the requisite ability to engage in a successful action—is a belief that has been shown to play an important mediating role in all major forms of cognitive motivation (Bandura, 1997) and is "the foundation of human agency" (Bussey & Bandura, 1999, p. 691). As such, a person's appraisal of the ability to successfully learn from a given resource will influence whether or not the resource is selected and, if selected, how persistent the use of the resource will be in the face of learning difficulties. A different efficacy appraisal is the perceived ability to effectively use a given method to locate or acquire learning resources that will influence the decision to invoke the method; for example, people who believe they are inept at using a library to find desired resources will likely not be found using a library for this purpose.

2.2 Behavior → Person Interaction

Selected learning resources provide information to the learner that the learner then transforms into personal meaning. Such meaning-making can shape personal beliefs, attitudes, and intentions with respect to the topic under study. It can also influence the learner as a person and their creation of future learning activities. In addition, such learning can be both intended and unintended depending upon the degree of relatedness between new information and the targeted topic of interest (Ponton, 2016b).

Note that personal meaning represents knowledge developed via subjective interpretations. As such, knowledge is individually constructed based upon a person's extant knowledge and subjective interpretations of new information. Even accurate information can be unintentionally misinterpreted or intentionally maladapted to suit personal preferences, but regardless of the degree to which resultant interpretations are objectively reasonable, learning resources provide the information upon which knowledge is constructed.

The consequences of selecting learning resources also influence one's self-efficacy to learn from such resources. Two sources of efficacy information are mastery experiences and physiological/emotive arousals (Bandura, 1997). Regarding the first source, the ability to successfully learn from a given resource not only enhances actual learning skill but also strengthens one's perception of the ability to learn from this resource thereby motivating the selection of the resource for similar future learning. Examples are do-it-yourselfers who continually rely on YouTube videos for home improvement projects and learners who repeatedly use Wikipedia as their primary source of information; based upon personally-determined successful previous learning, they have a strong sense that they can

learn again from these resources.

Physiological/emotive arousals also influence efficacy percepts. If a learner experiences physical or emotional difficulty when learning from a selected resource, they may interpret this as a lack of ability to learn from this resource thereby weakening the self-efficacy to learn from such a resource. On the contrary, it is possible for the learner to interpret such difficulty as merely part of the skill development process and, thus, temporary; by so doing, efficacy to learn from the resource can be strengthened. This is another example of how preexisting cognitive schema—whether the skill to learn from a given resource is personally-deemed as unchangeable or changeable—influence subjective interpretations of information. Note that self-efficacy to use a given method to locate or acquire learning resources—a different efficacy assessment—is also informed by these same sources of efficacy information.

Selected resources can also affect learning in unintended and undesirable ways. A persuasive message from a noncredible source can influence thinking over time as the message is recalled long after the source is forgotten, a phenomenon referred to as the "sleeper effect" (Kumkale & Albarracin, 2004, p. 143). Because of this, exposure to sources of information should be limited to only credible sources.

2.3 Person → Environment Interaction

Personological factors influence learning topics available in the environment. Internet content has exploded due to the wide spectrum of interests that people have as well as the desire to engage in learning; thus, these human characteristics alone influence this form of learning resource availability. Consider, as examples, the abundance of blogs, videos, social networking groups, and other digital media dedicated to cooking, home repair and improvement, gardening, diet and nutrition, crafting, fitness, and so on. Some of this content is generated by professionals sharing what they know, but much is also posted by individual, self-directed learners sharing what they learned from trying a product, technique, method, etc.

Learners also influence the environment when they have previously provided personal information in online media. Market-driven algorithms leverage those data to characterize internet users and, thus, provide content that matches inferred characteristics; thus, not only an understanding of people's desire to learn (and learn quickly) drove this technology but also an algorithmic attempt to predict individual topics of interest.

Market-driven forces in a capitalistic economy also play a role. As an example, when there is widespread interest in a given topic by individual learners, it does not take long for related books and other resources to be published.

2.4 Environment → Person Interaction

The mere presence of learning topics can shape a person's beliefs, attitudes, intentions, and learning skill. A given topic that exists pervasively in multiple environments captures people's attention thereby influencing their thinking, feeling, and intentions to learn more.

Pervasive misinformation and disinformation creates uncertainty regarding what is credible

information and can affect the degree to which a person will believe anything including credible information. For example, the recent COVID-19 pandemic is replete with stories of those who died after believing erroneous messaging that questioned its existence or purported the harmful effects of vaccines despite credible information to the contrary; such fatalities may also include those who chose to ignore all information due to the pervasive existence of contradictory messages and, thus, a negative attitude against all sources.

The environment provides information that influences percepts of efficacy. Vicarious experiences (Bandura, 1997) describe how the ability of similar others can influence the development of personal appraisals of ability as in the adage "if that person can do it, so can I." Thus, models existing in the environment who successfully use various learning resources can influence the degree to which a person believes that they can use such resources. An example is an elderly nondigital native who skillfully uses the internet thereby influencing the self-efficacy of elderly others to do the same.

Verbal persuasion is another environmental source of efficacy information (Bandura, 1997). When credible others provide explicit assurances that requisite ability exists in an agent, the agent's self-efficacy may strengthen; that is, when a person is told what they can do by someone whose opinion is valued, they may believe it.

2.5 Behavior → Environment Interaction

The selection of learning resources shapes the availability of learning resources, which is particularly true in market-driven, capitalist economies; hence, demand influences availability. For such economies, it is ostensibly true that no matter how objectively ridiculous a given topic may be, if there is action to learn more about it and a profit to be realized, associated information will exist. For example, sources of "news" are driven by providing interpretations of events based upon ideological or political alignments to consumers rather than unbiased reporting, and their degree of pervasiveness is proportional to the size of the market that exists.

Moreover, a person's history of searches and click behavior in a search engine influences the information the search engine will provide, creating what Pariser (2011) refers to as *the filter bubble*. Past searches and selections of resources train the search engine algorithms regarding a person's cultural and ideological viewpoints and provide resources that agree with these points of view while isolating the user from resources that disagree.

2.6 Environment → Behavior Interaction

People can only choose learning resources that are available; thus, what is available—either subjectively determined or objectively true—influences choice. Today, the availability of learning resources is virtually unlimited for those who access the internet, and search engines make such resources easy to access; hence, learning is now convenient for such users.

Unfortunately, citizens of authoritarian regimes experience intractable limits to personal freedoms such as unfettered access to the internet. In addition, webpages that can be accessed are often limited to government propaganda. As this is what is available, choices are

delimited.

3. Conclusion

Triadic reciprocal determinism outlines myriad influences that describe how self-directed learners select learning resources. Such influences are personologically related that address a person's interests, beliefs, attitudes, intentions, learning skills, and learning habits as well as structurally related such the availability of learning resources. Unfortunately as discussed, selection processes may be based upon factors other than a determination of what constitutes a credible source of information; thus, subsequent learning is deficient and actions based upon this deficiency are misguided and possibly deleterious.

The growing interest in education to develop learner self-directedness as preparation for a life afterward is essential in this age of burgeoning information, ideas, and individualized personal trajectories. Equally essential, however, is not just the development of self-directed learners but rather the development of competent self-directed learners who are skilled at critically examining the credibility of information sources and have developed the habit to both choose learning resources from credible sources and avoid exposure to information from noncredible ones. Personal satisfaction is an insufficient metric for self-directed learning; such learning must also be accurate if it is to fulfill its role as an essential process for a life well-lived.

References

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*(9), 1175-1184. https://doi.org/10.1037/0003-066X.44.9.1175

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman and Company.

Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science, 1*(2), 164-180. https://doi.org/10.1111/j.1745-6916.2006.00011.x

Bandura, A., Barbaranelli, C., Caprara, G., V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology, 71*(2), 364-374. https://doi.org/10.1037/0022-3514.71.2.364

Blankenship, V. (1985). The dynamics of intention. In M. Frese & J. Sabini (Eds.), *Goal-directed behavior: The concept of action in psychology* (pp. 161-170). Lawrence Erlbaum Associates.

Bouchard, P. (1994). Self-directed professionals and autodidactic choice. In H. B. Long & Associates (Eds.), *New ideas about self-directed learning* (pp. 121-137). Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.

Boyer, N. R. (2020). Capitalizing on requisite seismic shifts in education: Cultivating the empowerment of the learner [Opinion editorial]. *International Journal of Self-Directed*

Learning, 17(1), iii-vi. https://www.sdlglobal.com/journals

Brockett, R. G. (1985). The relationship between self-directed learning readiness and life satisfaction among older adults. *Adult Education Quarterly, 35*(4), 210-219. https://doi.org/10.1177/0001848185035004003

Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review, 106*(4), 676-713. https://doi.org/10.1037/0033-295x.106.4.676

Candy, P. D. (1990). The transition from learner-control to autodidaxy: More than meets the eye. In H. B. Long & Associates (Eds.), *Advances in research and practice in self-directed learning* (pp. 9-46). Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.

Chene, A. (1983). The concept of autonomy in adult education: A philosophical discussion. *Adult Education Quarterly, 34*(1), 38-47. https://doi.org/10.1177/0001848183034001004

Collier, C. P. (2021). Toward a rehumanizing education: Teaching and learning in a postpandemic society. *International Journal of Self-Directed Learning, 18*(1), 10-21. https://www.sdlglobal.com/journals

Confessore, S. J., & Confessore, G. J. (1994). Learner profiles: A cross-sectional study of selected factors associated with self-directed learning. In H. B. Long & Associates (Eds.), *New ideas about self-directed learning* (pp. 201-227). Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Addison-Wesley.

Garrison, D. R. (1989). Facilitating self-directed learning: Not a contradiction in terms. In H. B. Long & Associates (Eds.), *Self-directed learning: Emerging theory & practice* (pp. 53-62). Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.

Guglielmino, L. M. (1977). *Development of the self-directed learning readiness scale* (Publication No. 7806004) [Doctoral dissertation, University of Georgia]. ProQuest Dissertations & Theses Global.

Hiemstra, R. (1994). Self-directed learning. In T. Husen & T. N. Postlethwaite (Eds.), *The international encyclopedia of education* (2nd ed.). Pergamon Press.

International Society for Self-Directed Learning. (2021). *About us*. https://www.sdlglobal.com/about-us

Jarvis, P. (1992). Free-will, freedom and self-directed learning. In H. B. Long & Associates (Eds.), *Self-directed learning: Application and research* (pp. 97-117). Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.

Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. Follett.

Kumkale, G. T., & Albarracin, D. (2004). The sleeper effect in persuasion: A meta-analytic review. *Psychological Bulletin, 130*(1), 143-172. https://10.1037/0033-2909.130.1.143

Long, H. B. (1989). Self-directed learning: Emerging theory and practice. In H. B. Long & Associates (Eds.), *Self-directed learning: Emerging theory & practice* (pp. 1-11). Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.

Mezirow, J. (1985). Concept and action in adult education. *Adult Education Quarterly, 35*(3), 142-151. https://doi.org/10.1177/0001848185035003003

Morris, T. (2019). Self-directed learning: A fundamental competence in a rapidly changing world. *International Review of Education, 65*(4), 633-653. https://doi.org/10.1007/s11159-019-09793-2

Pariser, E. (2011). *The filter bubble: How the new personalized web is changing what we read and how we think.* Penquin.

Ponton, M. K. (2016a). An agentic perspective contrasting autonomous learning with self-directed learning. In M. K. Ponton & P. B. Carr, (Eds.), *Autonomous and self-directed learning: Agentic perspectives* (pp. 49-62). Watertree Press.

Ponton, M. K. (2016b). Imposed environments: The important role of fortuitous intersections. In M. K. Ponton & P. B. Carr, (Eds.), *Autonomous and self-directed learning: Agentic perspectives* (pp. 91-105). Watertree Press.

Ponton, M. K. (2021). A teaching strategy based upon a model of agentic learning. *Journal of Studies in Education, 11*(1), 1-11. https://doi.org/10.5296/jse.v11i1.18125

Ponton, M. K., & Carr, P. B. (2012). Autonomous learning and triadic reciprocal causation: A theoretical discussion. *International Journal of Self-Directed Learning, 9*(1), 1-10. https://www.sdlglobal.com/journals

Ponton, M. K., & Rhea, N. E. (2006). Autonomous learning from a social cognitive perspective. *New Horizons in Adult Education & Human Resource Development, 20*(2), 38-49. https://doi.org/10.1002/nha3.10250

Redding, T. R., & Aagaard, L. (1992). A descriptive investigation of the construct of self-direction. In H. B. Long & Associates (Eds.), *Self-directed learning: Application and research* (pp. 147-161). Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.

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