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A Teaching Strategy Based Upon a Model of Agentic Learning

Michael K. Ponton

Dept. of Higher Education and Learning Technologies, Texas A&M University-Commerce

P.O. Box 3011, Commerce, Texas 75429, United States

E-mail: Michael.Ponton@tamuc.edu

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Abstract

A major purpose of formal education is to prepare its students for life after graduation. In the current age of ever-increasing information and opportunities for novel personal and professional pursuits, the capacity to engage in lifelong agentic (i.e., intentional) learning is essential to maximize adaptation, achievement, and satisfaction. The purpose of this article is to discuss a model of agentic learning as the foundation for a teaching strategy that focuses on student development with respect to the various modes (individual, proxy, and group) and situations (selected and created) via which agentic learning is enacted. Examples of teaching techniques will be presented along with the consideration of developing actual and perceived ability for agentic learning in its various manifestations as preparation for fulfilling personally-chosen pursuits throughout life.

Keywords: human agency, agentic learning, teaching, instructional design.

1. Introduction

Social cognitive theory (Bandura, 1986) characterizes humans as deliberative beings who engage in purposeful action to achieve intended consequences as well as in evaluative reflection of both intended and unintended consequences. Although humans can respond reactively to happenings with or without much thought, such reactions do not characterize the vast array of proactive activities that represent the richness of human endeavors, direct people along individual trajectories, and stimulate societal change. It is this proactive aspect of action coupled with a creative intelligence that distinguishes the technologically-advanced lived condition of mankind from that of other animal species.

Human agency describes this purposeful action and is characterized by four constituent factors: forethought, intentionality, self-reactance, and self-reflection (Bandura, 2006). Using forethought, humans ideate desirable outcomes, establish plans to effect such outcomes, and create performance goals; they then react to these plans and goals by intentional pursuit and reflect upon actual consequences and revise plans and goals as personally desired. Although such agency can represent a reaction to unplanned happenings, people engage in a great deal of purposeful proaction thereby deciding what to do next from ostensibly similar conditions. It is this proactive disequilibrating activity—disequilibration refers to upsetting what is otherwise an equilibrium state that Bandura (1997) discussed as "discrepancy production" (p. 131)—that creates such diversity in human activities and conditions which characterizes the unique trajectories and resultant narratives of individuals.

In order to effect individual proclivities, humans must be capable of adaptation. In order to support adaptive functioning based upon individually chosen pursuits, people must be able to develop in personally desirable ways; that is, they must be able to engage in agentic (i.e., intentional) learning and pursue individually chosen topics in personally satisfying ways.

An important role of formal education is to prepare its students for a life after graduation. As this preparation must enable graduates to engage in a variety of pursuits, developing the capacity for agentic learning is essential. Graduates will choose individual pursuits; therefore, they must be able to agentically learn what is needed to facilitate such pursuits. As related to higher education, Fink (2013) discussed extensively the importance of "learning how to learn" (p. 56) as a major goal of teaching. The purpose of this article is to discuss how an extant model of agentic learning can be used to support a teaching strategy that purportedly can develop this capacity for agentic learning thereby supporting successful adaptive functioning and resultant personal achievement.

2. A Model of Agentic Learning

There is a distinction between an individual's personal agency and modes through which it is enacted. In order to accomplish an individually chosen objective, a person can rely upon his or her individual action, his or her individual action in coordination with others, or the action of others; that is, engage in individual, group, or proxy modes of agency, respectively (Bandura, 2006). It is still personal agency that leads to the initiation of action; however, the mode through which this personal agency is enacted may be alone or with the help of others to varying degrees as controlled by the agent.

Within the context of learning, an agent can intentionally engage in a learning activity that (a) requires only himself or herself defining the learning activity (individual mode), (b) involves the agent working with others to define the learning activity (group mode), or (c) requires others to define the learning activity (proxy mode). A situation that provides an opportunity for learning can be imposed, selected, or created (cf. Bandura, 1997, discussion of three environmental forms); thus, defining the learning activity refers to selecting/creating (a) the learning topic, (b) the learning method, (c) the evaluation method, and (d) revision of the learning method based upon the evaluation.

An imposed learning situation refers to an opportunity to learn about some given topic when the opportunity arises from happenstance. Examples of imposed learning situations are as follows: a person is afflicted by a disease, meets a stranger, or sees an article on black holes while internet searching for articles on Winston Churchill. (Note that internet browsing algorithms which lead readers to information—products, services, or other stories—that was not initially sought is a pervasive example of an attempt to make use of imposing situations to catalyze learning that was not initially intended.) Such imposed situations are fortuitous (Bandura, 1982) happenings (from the perspective of the person as the unit of analysis; there is nothing fortuitous about the functioning of internet search algorithms from the perspective of the programmer) that can then lead to a spectrum of responses from nonlearning to extensive learning; however, the happening was imposed upon the person without the person's proactive intention to be exposed to the specific situation (as per the previous examples, the specific disease, the specific stranger, or the specific topic of black holes). In this regard, the imposed situation in and of itself is not agentic learning, and the response of the person to the imposition may or may not be agentic learning depending upon the degree to which further learning is intentionally pursued.

Note that the possibility of agentic learning as a response to imposed situations can be dependent upon nonlearning personal agency; that is, when a person proactively engages in myriad activities without any intention to learn, he or she is increasing the opportunity for fortuitous happenings to occur that can lead to agentic learning. As an example, a person who chooses to play rugby creates an opportunity for related injuries, and such injuries can then lead to learning about the injuries that would not have occurred if the person had not initially chosen to play rugby. Although the personal choice and resultant activity of playing rugby is agentic, the activity itself is not agentic learning, and any agentic learning that occurs as a response to an imposed situation resulting from the play is not created via forethought prior to the imposition; hence, fortuity is still an appropriate characterization of the imposed situation.

As learning inherently involves being exposed to unknown subtopics, there is an obvious lack of predictability on the learner's part in what he or she will encounter while engaging in a learning activity, and the probability of the encounter (i.e., the imposition) is based upon the degree of relatedness to the desired learning topic. As examples, learners engaged in a study of Winston Churchill's life may not be able predict that the topic of Blenheim Palace (his birthplace) will be imposed upon them, but there is a high chance of this fortuitous intersection due to the Palace being objectively-related to his life; in contrast, there is a low

chance of these same learners being exposed to black holes during an internet search of Churchill's life as black holes are unrelated to the study of his life. The continuum of chance related to imposed environments is more fully discussed by Ponton (2016b).

The second situation is the selected learning situation. There are myriad existing learning activities that people can select from and engage in. An existing learning situation is presently defined as a learning activity that has already been created by someone other than the selector and this creator also controls any revisions to the method and evaluation. These courses (as they are typically referred to at the individual class level in the United States) are those designed for professional certification, continuing professional education, college-level learning, or noncredit learning. Based upon an interest in a given topic, an existing learning activity is selected that coincides with this interest. There are, of course, other factors that influence the selection process (e.g., quality, cost, time, schedule, location, availability, and perceived personal ability—referred to as self-efficacy; Bandura, 1997—to successfully learn from the activity), and these factors are subjectively weighted by the selector in making a selection; however, these factors are secondary to the primary selection consideration of topic.

Note that the selector may be the individual learner (individual mode), someone that the learner has given selection control to (proxy mode), or the learner working with others who the learner chose to aid in the selection process (group mode). In all modes, however, it is the learner who initiated the selection process and chose the mode—individual, proxy, or group—of selection. Further, using self-reflection to evaluate personal satisfaction, the learner is also in control of whether or not to continue participation once engaged and any subsequent intentional action regarding further learning following completion.

The last situation is the created learning situation and is presently defined as a learning activity newly structured for a given learning topic. When a learner desires to learn about a given topic without the formal need for certifying the adequacy of such learning (e.g., by a faculty), he or she can create—with or without the enlisted help of others—the method, evaluation, and revision of the learning activity. For example, if a learner wants to learn about pyramids, he or she can decide how to learn about pyramids (e.g., books to read, videos to watch, etc.), the extent of desired learning, whether or not resultant learning is satisfactory, and how or if to engage in further learning after completing the learning activity. The learner can also enlist knowledgeable others to create the method and evaluation (proxy mode) or work with knowledgeable others in doing so (group mode); however, whether the learner works alone to create the learning situation or works with others to varying degrees, the learning situation is still the result of the learner's personal agency to intentionally create an activity that satisfies a personal learning desire regarding a given topic.

Whether an agent is engaging in a learning activity reactively due to an imposed situation or proactively due to personal interest, the resultant agentic learning will be either the selection or creation of a learning activity with or without the help of others. Incorporating the three modes of personal agency, an extant model of agentic learning thus consists of the following six possible manifestations (cf. Ponton, 2016b, Fig. 1):

1. Individual mode – Selected activity: The learner works alone to select a learning activity.
2. Proxy mode – Selected activity: The learner enlists others to select a learning activity.
3. Group mode – Selected activity: The learner works with others to select a learning activity.
4. Individual mode – Created activity: The learner works alone to create a learning activity.
5. Proxy mode – Created activity: The learner enlists others to create a learning activity.
6. Group mode – Created activity: The learner works with others to create a learning activity.

In 2020, the board of the International Society for Self-Directed Learning adopted the following definition of *self-directed learning*: "Self-directed learning is an intentional learning process that is created and evaluated by the learner" (Ponton, Boyer, & McCarthy, 2020, para. 4). Based upon this definition, Manifestation 4 represents self-directed learning. Ponton (2016a) argued that all six manifestations represent *autonomous learning* thus characterizing a learner's desire (Meyer, 2001), resourcefulness (Carr, 1999), initiative (Ponton, 1999), and persistence (Derrick, 2001) to learn agentically (Confessore, 1992). More recently, the theoretical model of individual agency herein discussed was extended to describe organizational agency (Ponton, 2019) thereby supporting a discussion of how this model of autonomous individual learning can be used to describe autonomous group learning (Ponton, 2020).

3. A Teaching Strategy

Bandura (2006) asserted that "everyday functioning requires an agentic blend" (p. 165) of the three modes—individual, proxy, and group—through which personal agency is enacted. Agentic learning, an important manifestation of human functioning, also requires such a blend in order to maximize efficiency and effectiveness. In order to engage in all six manifestations of agentic learning, a learner must not only be able but also perceive himself or herself to be able (i.e., have a strong sense of self-efficacy) to successfully engage in these manifestations as self-efficacy plays a critical role in self-motivation (Bandura, 1997). As both actual and perceived ability are best enhanced via authentic mastery experiences (Bandura, 1997), teaching strategies should incorporate techniques that provide developmental experiences to students addressing all six manifestations. Developing the capacity to enlist all manifestations of agentic learning is an important teaching goal that can transcend any temporary learning of a given topic as such agency empowers students to be lifelong learners and personal change agents. The following teaching strategies that address all six manifestations of agentic learning as well as a recommended progression represent a curricular teaching strategy.

3.1 Teaching Techniques for a Selected Learning Activity

In order to facilitate the selection of a learning activity, there must be several activities from which to choose as well as a selector. For this to occur within a single course controlled by an instructor, the instructor can design various learning activities and selection procedures and then task students with controlling the selection process using one of the three modes

discussed.

3.1.1 Individual mode

This mode requires each student to select a learning activity. The teaching technique would be to create a repertoire of learning activities from which the student would be required to choose and learn from. As a simple example, a student can be provided multiple text options and then tasked with choosing one to read; however, to help the student develop as a critical consumer of information, the instructor should also provide the rationale for providing the options (e.g., relatedness to the course topic, usefulness in facilitating an understanding of the course topic, quality of the information, and expertise of the writers) as well as offer criteria that the student should consider when choosing (e.g., personal interests, professional goals, and prerequisite knowledge to facilitate an understanding). By so doing, the future graduate will be better able to determine the selection methods and adequate sources for personally desired knowledge. As people are lifelong consumers of information, developing the ability to purposefully select credible sources of information that influence thought and action is an essential developmental responsibility of instruction.

3.1.2 Proxy mode

This mode requires each student to enlist another person—the proxy—to select a learning activity for the student. The primary reason that anyone would want a proxy to select a learning activity would be due to the proxy's expertise regarding the topic of interest; thus, the associated teaching technique would be for the student to understand the value of this mode and then require the student to identify a desired learning topic (e.g., a subtopic under the overall course topic), critically identify a proxy with knowledge regarding the topic, solicit from the proxy a recommendation regarding how to learn about the desired topic, and then engage in the recommended learning activity. Although proxies can often be nonstudents, for courses with large enrollments of working adult learners (e.g., graduate level courses), a sharing of student backgrounds (i.e., education and work histories) may reveal opportunities to identify proxies from within the course.

3.1.3 Group mode

This mode requires each student to work with others to select a learning activity. Associated teaching techniques may involve the following: (a) offering all students in the course a repertoire of learning activities and then require them to discuss and select one or more activities that everyone will participate in; (b) create groups of students, offer each group a repertoire of learning activities, and require each group to discuss and select one or more activities that group members will participate in; and (c) require students to work with someone outside the course to select a learning activity. There likely can be other creative variations to this mode of selection, but the essential goal is for students to actively work with others (i.e., share decision making) to evaluate and select from existing learning activities in light of interests, goals, and prerequisite knowledge.

3.2 Teaching Techniques for a Created Learning Activity

3.2.1 Individual mode

This mode requires each student to create a learning activity; that is, choose the learning topic, create the learning method, and create the evaluation method (note: an opportunity to revise the learning method based upon the evaluation may also be incorporated in the assignment). The teaching technique would be to task students to work individually in performing these creative functions. Of course the instructor could still serve as a resource person to clarify these requirements (e.g., requiring student-chosen subtopics to be related to the course's overall topic) thereby facilitating student work; however, the instructor should not supplant each student's responsibility to perform these functions; that is, serving as a resource to facilitate the creation of a learning activity is not the same as exerting proxy control by performing any creative functions. Each student must completely control the creation of the learning activity so that learning successes strengthen self-efficacy by not allowing a student to attribute such successes to anyone (e.g., the instructor) other than himself or herself.

3.2.2 Proxy mode

This mode requires each student to enlist another person—the proxy—to create a learning activity for the student. The teaching technique would be to require the student to identify a desired learning topic, critically identify a suitable proxy, enlist the proxy to create a learning activity (i.e., choose one or more related subtopics, create a learning method, and create an evaluation), engage in the learning activity, and allow the proxy to perform the evaluation.

3.2.3 Group mode

This mode requires each student to work with others to create a learning activity. As a group activity (note: the "group" could be all students in the course or a smaller collection of students), the associated teaching technique could be designed for at least two different purposes: (a) the group creates a learning activity that all members will engage in, or (b) the group creates multiple learning activities and each member participates in one or more with the ultimate aim that all activities are completed by the group so that the group can complete a group level assignment.

3.3 Scaffolding of Teaching Techniques

Creating a learning activity demands more skills than selecting from existing learning activities; thus, proper scaffolding of instructional designs to develop agentic learning abilities should generally require students to engage in selection activities before being tasked with creation activities. Similarly, having others control (proxy) or share control (group) requires less decisional burden when compared to individual control; thus, instructional designs should generally move from proxy to group to individual control. The proposed teaching strategy that addresses the development of the capacity for agentic learning incorporates a general progression of teaching as follows:

Stage 1 Teaching: Proxy mode – Selected activity;

Stage 2 Teaching: Group mode – Selected activity;

Stage 3 Teaching: Individual mode – Selected activity;

Stage 4 Teaching: Proxy mode – Created activity;

Stage 5 Teaching: Group mode – Created activity; and

Stage 6 Teaching: Individual mode – Created activity.

There are current human processes related to education that at first blush might be placed within these modes of activities; however, in light of the purpose of this teaching strategy to develop agentic learning abilities, such placements would be incorrect. For example, parents do in fact select from existing learning activities (e.g., schools) for their children; thus, this would seem to be a manifestation of the proxy mode for a selected activity. As a second example, college students register for courses designed by instructors, which would seem to be a manifestation of the proxy mode for a created activity. However, both of these placements would be incorrect in the present discussion as neither of these activities were the result of an individual's agency to facilitate personally desired learning. That is, children do not typically consider desired personal learning, select their parents as knowledgeable proxies, and then enlist their parents to select a learning activity; and college students do not typically consider desired personal learning, select an instructor as a knowledgeable proxy, and then enlist the instructor to create an appropriate learning activity. In both cases, very little control was initially exerted by the learner. In developing the capacity for agentic learning via multiple modes, an essential consideration is that control begins with the individual learner who decides what he or she wants to learn and then exerts personal agency in deciding which mode (individual, proxy, or group) and which situation (selected or created) to pursue. In this regard, the final stage for this teaching strategy is the following:

Stage 7 Teaching: Mode and situation decided by the learner.

This final stage mimics life after graduation. The groundwork for engaging in this stage of instruction would include participation in Stages 1 through 6 followed by critical reflection of each activity's uniqueness, effectiveness, and efficiency in order to develop the capacity for choosing an optimal manifestation of agentic learning in life after graduation. Note, however, that a consideration of efficiency should play a lesser role during the developmental process. For example, it may certainly be more efficient for an instructor to create a learning activity for his or her students than requiring each student to do so; however, students will not "learn how to learn" (Fink, 2013, p. 56) via the individual mode of creation unless they are allowed to engage in individual mastery experiences.

The ordering of stages should not be interpreted as a rote progression of teaching techniques nor should all associated teaching techniques be interpreted as necessary for any single course. Rather, the stages represent a general progression through the entire system of formal education in which there is an increasing requirement for (a) individual control, (b) the creation of learning activities, and (c) individual discretion regarding both mode and situation for desired learning. At the course level, course content, instructor preferences, and student needs influence the adoption of specific teaching techniques; however, as a developmental process, education as a whole should incorporate progressive teaching techniques that strengthen actual and perceived student abilities to engage in a variety of agentic learning

activities with the ultimate acknowledgement that Stage 7 teaching is actual preparation for life after graduation.

Note also that there can be a progression regarding the extent of agentic learning activities. For example, teaching techniques for young children can require students to create very short duration episodes of learning that may only require the creation of a very brief learning activity such how to define a phrase or find the geographic location of a country. At the end of the educational progression, the pinnacle of manifest student agentic learning occurs when doctoral students develop their dissertations by completely controlling what is to be learned, how it is to be learned, and when resultant learning is sufficient; however, this ultimate control can be manifest throughout the curriculum via learning activities of lesser extents.

There can also be a progression of the development of requisite learning subskills and a mix of selection and creation. For example, an instructor can provide a list of topics from which students (individually or as a group) can choose, students (individually or as a group) can create an associated learning activity, and the instructor can evaluate subsequent learning. In this regard, there is a mixing of modes and situations regarding the learning activity with the purpose of developing subskills that ultimately support and lead to total student control over intended individual learning.

4. Conclusions

Proper instructional design typically requires defining desirable learning outcomes and then choosing learning activities that support these outcomes (cf. Fink, 2013). The foundational premise of this article is that *the development of the capacity for agentic learning is an essential goal of formal education*; thus, teaching should be designed to facilitate this development. Although some teaching techniques to develop this capacity were presented, what is most important is that this essential goal is kept in the forefront of instructors' minds when designing their instruction; by so doing, instructor discretion can then lead to adoption or adjustment of presented techniques or the creation of new ones. Despite myriad other considerations that inform design (e.g., content level, program goals, certification requirements, instructor preferences, student needs, delivery mode, etc.), instructors must realize that the development of human agency in learning is a paramount concern so that they then will incorporate developmental scaffolding of facilitative strategies. Using an extant lens of agentic learning as a guide for instructional design, the presented teaching strategy will prepare students to live self-fulfilling lives as agentic learners engaged in lifelong adaptation and achievement in individually-chosen pursuits.

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