

# SKILLS for SELF-DIRECTED LEARNING

Huey B. Long

## SELF-DIRECTED LEARNING

Self-directed learning is an increasingly popular topic. Educators and trainers who are attracted to potential self-directed learning applications often have questions about the skills needed to be an effective self-directed learner. Some answers are now available among the nuggets of information scattered through out a large body of research literature. Some of the fundamental skills for self-directed learning reported in the research literature are identified in the following paragraphs.

Self-directed learning is discussed according to one or more of three major conceptualizations:

- **Independent learning**, which connotes learning in isolation, or is represented by the "lone" learner who makes all of the decisions about goals, content, effort, time, and evaluation, etc. Assistance from others is routinely accepted and rejected according to the learner's own whims and standards.
  
- **Distance learning**, which connotes physical distance between the learner and a teacher or an agent where the learner is constrained in some degree by a curriculum devised by others; but in some ways learner behavior may include some of the activities noted in the other two conceptualizations.
  
- **Psychological control**, which connotes the necessary element in the definition is found in the learner's psychological independence (control) rather than in social or curricula elements. Thus, neither the setting, nor the format of the learning activity, necessarily determines if learning is self-directed.

The third conceptualization as noted above is used in this discussion of self-directed learning skills. The following definition is used here:

Self-directed learning is a purposive mental process, usually accompanied and supported by behavioral activities involved in the identification and searching out of information. The learner consciously accepts the responsibility to make decisions about goals and effort, and is, hence, one's own learning change agent.

Consistent with the third conceptualizations of self-directed learning noted above, the main characteristic of self-directed learning is the degree to which the learner maintains active control of the learning process.

Effective, or successful, self-directed learners can be described by two psychological attributes. The first is associated with personality while the second is related to cognition. As most of the comments in the following pages deal with skills it is important to note here that personality appears to be an important factor in initiating self-directed learning.

## PERSONALITY TRAITS

Some of the personality traits are

- · Self-confidence

- · Inner directed
- · Achievement motivated.

### **GENERAL SKILLS**

Assuming the individual has a moderate allocation of the identified personality attributes, at least six kinds of cognitive skills appear to be particularly important in successful self-directed learning.

They are as follows:

- · Goal setting skills
- · Processing skills
- · Other cognitive skills
- · Some competence or aptitude in the topic or a closely related area
- · Decision making skills
- · Self-awareness

### **GOAL SETTING SKILLS**

Unfortunately many individuals have not learned how to determine what is important and then how to select from among alternative possibilities -- or to even imagine possibilities that have not been given to them by authority figures. These individuals have become accustomed to having questions and problems identified for them rather than developing the cognitive ability to engage in problem identification and problem posing. As a consequence, they also may have limited observational skills that inhibit their ability to determine what is important in their learning environment.

Therefore, some effort is often required to develop these skills before a person becomes a successful self-directed learner. Thus, when working with people with little experience in self-directed learning, careful attention should be given to helping them to imagine possible outcomes of results of their learning, and then encouraging them know how and why to choose from among multiple desirable goals.

### **INFORMATION PROCESSING SKILLS**

Even though good strong reading ability is often identified with successful self-directed learners, there are other information processing skills that are also important. From the available research it is assumed that the self-directed learner is able to attend to and process information by the at least one if the following skills:

- · Observing - the ability to see and do, or the ability to see and understand.
- · Seeing and translating - the ability to translate visual information to notes and records, or the ability to graphically reproduce visual information and to relate it to existing information schemes.
- · Reading - the ability to read, translate, and comprehend written material.
- · Listening - the ability to receive and process aural information and relate it to existing information schemes.

### **OTHER COGNITIVE SKILLS**

In addition to the above information processing abilities other cognitive skills appear to be associated with self-directed learning success. Some of these skills are

- · Sensory, including the ability to select from multiple sensory in-put, identify, and classify the sensory information.
- · Memory, working memory is important in the processing of information before it is assimilated into existing long-term memory.
- · Elaboration includes the ability to take an item from working memory and process it by imaging, deducing, discriminating, generalizing, etc.
- · Problem solving and problem posing.

## **EXECUTIVE SKILLS**

Self-directed learners seem to be different from other-directed learners in the degree to which they can focus on information monitor their processing and other cognitive activities, and in the way they react to information. A simple illustration is found in the self-directed learner's act of reading and studying. Self-directed learners are aware of when the cease to interact with the written material, and begin to merely process words. A change in behavior may be called for and the learner may adopt a different procedure such as note taking, drawing schemata, etc., to refocus on the material and to stay on task.

Executives skills required include:

- Pre-task monitoring
- Using a strategy for gathering and using information
- Information gathering
- Self-awareness as it pertains to existing prior knowledge, personal cognitive processes, and ability to control the cognitive system.
- Self-monitoring
- Reflection
- Assimilating/accommodating

## **DEEP PROCESSING SKILLS**

The successful self-directed learner engages in deep cognitive processing, an important activity associated with self-directed learner activities. The learner

- · Derives enjoyment from the activity.
- · Searches for meaning in the information.
- · Often personalizes the task by relating it to his or her own experience.
- · Relates bit and parts of the information relates evidence to conclusions, and relates the whole to previous knowledge.
- · Develops theories, forms hypotheses, etc.

The above deep processing activities may be contrasted with surface processing that includes the following characteristics:

- Learning is perceived as a task, a demand or requirement that is a necessary imposition to achieve a goal.
- Learners see aspects of parts as discrete and unrelated to each other or to other learning goals.
- Learners avoid personal or other meanings the learning activities may have.

- Learners rely on memorization, attempting to reproduce the surface of the learning task, repeating words, diagrams, etc. rather than rephrasing or elaborating as means of understanding.

The result of surface processing as opposed to deep processing may be similar to what Alfred North Whitehead called "inert" ideas. The content, ideas, and observations in surface processing are mere mental reproductions in the absence of active meaningful mental activity.

### **CONTENT COMPETENCE**

Some minimal level of aptitude or competence in the self-directed learning topic, or a closely related area, seems to be desirable if not necessary. Because of limited understanding of ontological knowledge development the premise of pre-existing or a *priori* competence is difficult to prove or disprove. But personal observations indicate that people skilled in certain areas tend to emphasize those while avoiding topics and activities in areas in which they are less competent. For example, an individual is likely to be a more successful self-directed learner with some preexisting awareness of fundamental vocabulary, concepts and structure of the information. Hence, someone who knows basic arithmetic may be able to be self-directing in learning math, then algebra, then geometry, etc. Or someone who knows their own language may learn another language based on knowledge of the first language.

### **DECISION MAKING SKILLS**

This skill category might be given a number of labels to connote "thinking" ability. Some might refer to it as being logical in thought. Others might prefer analytical. And yet others might choose critical. Regardless of the label, the self-directed learner must develop the ability to identify, prioritize, select, validate, evaluate, and interpret information obtained through the processing skills. Information is not equal; some is more useful than others for given purposes. Learners who are unable to establish some kind of observation protocol based on learning goals are unlikely to be self-directed learners. The successful self-directed learner develops the ability to determine and evaluate the sources of information as well as the reliability, validity, and meaning of information (including theories and other explanations).

### **SELF-AWARENESS**

The successful self-directed learner has the ability to be aware of "self." This attribute is closely related to some of the executive processes identified with metacognition. It enables individuals to be aware of their learning processes, of their weaknesses and strengths, to know if they can call up additional powers of concentration, to know of their ability to use a different approach, to know how and what is distracting in their environment, to know the importance of a given learning activity, to know when they need assistance, to have a realistic perception of their ability to achieve their learning goal.

### **CONCLUSION**

Self-directed learners develop by a continuing process. It is unreasonable to expect people who have matured in an environment that challenged their personal integrity, that spoon fed them with information, and one that required conforming thought, to become instantaneous self-directed learners. Environments that nurture, sustain, and develop the personality and cognitive attributes identified above are important in the development of self-directed learners.