

Fundamentals of Learning Theories

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INTRODUCTION

Humans have different interpretations of learning theories and different beliefs about how people learn. All these beliefs may come from personal experience, self-reflection, observation of others, and through the experience of trying to teach or persuade someone else to your way of thinking. In a nutshell, everyone keeps learning every waking minute, using different learning theories. In democratic cultures, people may prefer critical thinking as an effective learning theory whereas in authoritarian cultures, people may like rote learning or memorization as an effective learning theory. It is extremely difficult to determine which learning theories are better than others because people are engaged in informal or formal learning to change the way they see themselves, change the way they see other people, and change the way they see situations (Cramer & Wasiak, 2006). All these learning theories are valuable in guiding one's action in a particular culture, subculture, or even a particular setting. Although scholars have different interpretations of learning theories, the goal of any learning theory is the same. For example, Merriam (2004) explains a learning theory as leading to learners' growth and development. Mezirow explains the theory of transformative learning as helping learners achieve perspective transformation. Maslow considers the goal of learning to be self-actualization: "the full use of talents, capacities, potentialities, etc." (p. 150). Some learning theories such as the theory of andragogy encourage learners to be self-directed in learning whereas other theories emphasize the roles of teachers as information transmitters instead of learning facilitators, thus placing learners at the feet of master professors.

Over the years, scholars have never stopped debating over which learning theories are superior to other learning theories for a certain group of learners. Very often, these scholars are divided into two blocs: some who emphasize releasing the energy of learners as a good learning theory from the Western hemisphere and others who emphasize the passive role of following

their teachers as learners from the Eastern hemisphere. Often times, this line of division may be blurred as globalization brings different cultures together. The next section addresses how different learning theories came into being and what may be the essential elements in these theories that both scholars and learners need to pay attention to.

BACKGROUND

Experiments on how animals and humans learn went back as early as the late nineteenth century when John B. Watson (1878-1958) conducted a study of learning in animals. The Russian physiologist Ivan Pavlov (1849-1936) conducted experiments that resulted in the concept of conditioned reflexes (as cited in Knowles, Holton, & Swanson, 1998, 2005, p. 25). Upon the basis of these experiments and others, scholars have tried to make comparisons between human and animal learning. The conclusion drawn is animals learn via reflexes and behavior modification whereas humans learn through reflection (Wang & King, 2006, 2007). As the first American educational philosopher, John Dewey (1933) addressed the issue of why people learn by stating that learners are faced with learning problems and these learning problems perplex and challenge the mind so that it makes belief uncertain. Dewey continued to say that it is this perplexity that leads to reflective thinking, hence learning of the learners. This line of thought was widely accepted in the academic world. Later, in the early 1980s, Jack Mezirow advanced the theory of transformative learning which explains that it is the disorienting dilemma that forces learners to learn. The premise of Mezirow's theory does not deviate too far from Dewey's reflective thinking theory.

The early study of how animals and humans learn has sparked widespread study in generating more useful learning theories. The 1960s saw a proliferation of learning theories in the Western hemisphere. Rogers (1969, p. 5) explains how a learning theory can lead to effective learning by claiming:

- **Personal involvement:** The whole person, including the person's feelings and cognitive aspects, are involved in the learning event.
- **Self-initiation:** Even when the impetus or stimulus comes from the outside, the sense of discovery, of reaching out, and of grasping and comprehending, comes from within.
- **Pervasiveness:** Learning makes a difference in the behavior, attitudes, and perhaps even the personality of the learner.
- **Evaluation by the learner:** The learner knows whether the learning meets personal need, whether it leads toward what the individual wants to know, and whether it illuminates the dark area of ignorance the individual is experiencing. The locus of evaluation, we might say, resides definitely in the learner.
- **Its essence is meaning:** When such learning takes place, the element of meaning to the learner is built into the whole experience.

To Gagne (1972, pp. 3-41), an effective learning theory must lead to change in five domains of the learning process:

1. **Motor skills:** Which are developed through practice.
2. **Verbal information:** The major requirement for learning being its presentation within an organized, meaningful context.
3. **Intellectual skills:** The learning of which appears to require prior learning of prerequisite skills.
4. **Cognitive strategies:** The learning of which requires repeated occasions in which challenges to thinking are presented.
5. **Attitudes:** Which are learned most effectively through the use of human models and "vicarious reinforcement."

Later, Gardner (1983) developed the theory of multiple intelligences that is widely applied in the field of teaching and learning. Easterners did not seem to have conducted as many experiments as Westerners regarding how humans learn. Their learning theories seem to have been derived from either Buddhism or Confucianism or from a combination of both. Today, open any textbook in the field of teaching or learning written by either Westerners or Easterners and there will be at least one or two prevalent learning theories

expounded on with the intention to guide both educators and learners. With so many learning theories out there in the field, can educators and learners make a smart choice as to which ones to pick up and apply in practice? This remains a question to be addressed in the next section.

ESSENTIAL COMPONENTS OF LEARNING THEORIES

Researchers have made great efforts in their attempts to categorize learning theories. To date, educators and learners are not unfamiliar with the 11 categories identified by Hilgard and Bower (1966):

1. Thorndike's Connectionism
2. Pavlov's Classical Conditioning
3. Guthrie's Contiguous Conditioning
4. Skinner's Operant Conditioning
5. Hull's Systematic Behavior Theory
6. Tolman's Purposive Behaviorism
7. Gestalt Theory
8. Freud's Psychodynamics
9. Functionalism
10. Mathematical Learning Theory
11. Information Processing Models

Prior to categorizing learning theories, Dewey's pragmatism stood out as an effective learning theory that was widely accepted by both educators and learners. It must be pointed out that not all learning theories fall into certain categories. The beauty of categorizing learning theories will help educators and learners discern these theories. Otherwise, both educators and learners will get overwhelmed by the vast number of learning theories, wondering which ones to use to guide their action.

An important feature about learning theories is that any theory presupposes a more general model according to which theoretical concepts are formulated (Reese & Overton, 1970). Unless a general model is successfully derived from a learning theory, educators and learners may find it hard to apply in practice. Such is the case with the theory of transformative learning. Many people have heard of the theory, but do not have a clue as to how to apply it in practice. Wang and King (2006, 2007) developed a model out of an in-depth comparison between transformative learning and Confucianism. As

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