

Learning Theories Summary

Whether we know it or not, we teach from a perspective we refer to as a learning theory. We can define a learning theory as an attempt to describe how people learn. Understanding your perception of how people learn will help you to understand why you teach the way you do and how you can leverage this when teaching in a technology-enhanced, media-rich online, hybrid, blended, flipped, or traditional classroom.

To be sure, the information provided here is not in-depth and certainly could be more extensive. However, in the short time we have, it will provide an overview of the theories that you may recognize in your current teaching practice and those you may wish to cultivate in the course you are developing.

The following information is excerpted (with permission) from: Smith, M. K. (1999) 'The behaviorist orientation to learning', *the encyclopedia of informal education*, www.infed.org/biblio/learning-behaviourist.htm, Last update: May 29, 2012. This was last accessed January 3, 2012 from <http://www.infed.org/biblio/learning-behaviourist.htm> NOTE: Please see site for all references contained in this information.

Behaviorist Theory

In essence three key assumptions underpin this view:

- Observable behavior rather than internal thought processes are the focus of study. In particular, learning is manifested by a change in behavior.
- The environment shapes one's behavior; what one learns is determined by the elements in the environment, not by the individual learner.
- The principles of contiguity (how close in time two events must be for a bond to be formed) and reinforcement (any means of increasing the likelihood that an event will be repeated) are central to explaining the learning process. (Merriam and Caffarella 1991: 126)

In terms of learning, according to James Hartley (1998) four key principles come to the fore:

- *Activity is important.* Learning is better when the learner is active rather than passive. ('Learning by doing' is to be applauded).
- *Repetition, generalization and discrimination are important notions.* Frequent practice - and practice in varied contexts - is necessary for learning to take place. Skills are not acquired without frequent practice.
- *Reinforcement is the cardinal motivator.* Positive reinforcers like rewards and successes are preferable to negative events like punishments and failures.
- *Learning is helped when objectives are clear.* Those who look to behaviorism in teaching will generally frame their activities by behavioral objectives e.g. 'By the end of this session participants will be able to...'

Cognitive Theory

Researchers like Piaget while recognizing the contribution of environment, explored changes in internal cognitive structure. He identified four stages of mental growth (sensorimotor, preoperational, concrete operational and formal operational). Bruner explored how mental processes could be linked to

teaching (emphasizing, among other things, learning through discovery). Gagné developed a model that highlighted eight different forms of learning.

Hartley (1998) articulates some of the key principles of learning associated with cognitive psychology.

- *Instruction should be well organized.* Well-organized materials easier to learn and to remember.
- *Instruction should be clearly structured.* Subject matters are said to have inherent structures - logical relationships between key ideas and concepts - which link the parts together.
- *The perceptual features of the task are important.* Learners attend selectively to different aspects of the environment. Thus, the way a problem is displayed is important if learners are to understand it.
- *Prior knowledge is important.* Things must fit with what is already known if it is to be learnt.
- *Differences between individuals are important as they will affect learning.* Differences in 'cognitive style' or methods of approach influence learning.
- *Cognitive feedback gives information to learners about their success or failure concerning the task at hand.* Reinforcement can come through giving information - a 'knowledge of results' - rather than simply a reward.

Humanistic Theory

A great deal of the theoretical writing about adult education in the 1970s and 1980s drew on humanistic psychology. In this orientation the basic concern is for the human potential for growth and learning is seen as self-actualization. Humanist theory considers Maslow's hierarchy of motivation. At the lowest level are physiological needs, at the highest self-actualization. In this model, a motive at the lower level is always stronger than those at higher levels. Tennant (1997) summarizes these as follows:

- Level one: *Physiological needs* such as hunger, thirst, sex, sleep, relaxation and bodily integrity must be satisfied before the next level comes into play.

- Level two: *Safety needs* call for a predictable and orderly world. If these are not satisfied people will look to organize their worlds to provide for the greatest degree of safety and security. If satisfied, people will come under the force of level three.
- Level three: *Love and belongingness needs* cause people to seek warm and friendly relationships.
- Level four: *Self-esteem needs* involve the desire for strength, achievement, adequacy, mastery and competence. They also involve confidence, independence, reputation and prestige.
- Level five: *Self-actualization* is the full use and expression of talents, capacities and potentialities.

Rogers (1983) saw the following elements as being involved in significant or experiential learning.

- *It has a quality of personal involvement*—the whole person in both feeling and cognitive aspects being *in* the learning event.
- *It is self-initiated*. Even when the impetus or stimulus comes from the outside, the sense of discovery, of grasping and comprehending, comes from within.
- *It is pervasive*. It makes a difference in the behavior, the attitudes, perhaps even the personality of the learner.
- *It is evaluated by the learner*. The learner knows whether needs are met, whether participation leads to what the learner desires to know. The locus of evaluation resides within the learner.
- *Its essence is meaning*. When such learning takes place, the element of meaning to the learner is built into the whole experience.

Social/situational Learning

Social learning theory 'posits that people learn from observing other people. By definition, such observations take place in a social setting' (Merriam and Caffarella 1991). Within psychology, initially it was behaviorists who looked to how people learned through observation. Later researchers like Bandura looked to interaction and cognitive processes. One thing that observation does is to allow people to see the consequences of other's behaviors. They can gain some idea of what might flow from acting in this way or that.

In this model from Lave and Wenger (1991), behavior results from the interaction of the individual with the environment. Rather than looking to learning as the acquisition of certain forms of knowledge, they placed it in social relationships – situations of co-participation.

Lave and Wenger (1991) illustrate their theory on observations of different apprenticeships. Initially people have to join communities and learn at the periphery. As they become more competent they

move more to the 'center' as masters of the particular community. Learning then is not the acquisition of knowledge by individuals so much as a process of *social* participation.

Three highlights of the theory of situated learning are:

- Learning is in the relationships between people allowing for information to take on relevance
- Educators work so that people can become participants in communities of practice
- There is an intimate connection between knowledge and activity

Constructivist Theory

This theory posits that people construct their own understanding and knowledge rather than acquiring it. They construct knowledge through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must ask questions, explore, and assess what we know. In the most general sense, it usually means encouraging students to use active techniques (experiments, real-world problem solving) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing. Piaget (1896-1980) conducted extensive research in developmental psychology. Piaget's developmental theory of learning and constructivism are based on discovery. According to his constructivist theory, in order to provide an ideal learning environment, students should be allowed to construct knowledge that is meaningful for them.

Vygotsky, known for his theory of social constructivism, proposes that learning and development is a collaborative activity and that knowledge is created in the context of socialization and education. The tools of knowledge creation are provided by culture, such as history, social context, traditions, language, and religion. For learning to occur, the student first makes contact with the social environment on and then internalizes this experience. Previous experience influences the student, who then constructs new ideas.