How People Learn: Introduction to Learning Theory

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The Learning Process

Learning theorists have provided us with a set of ideas about how people learn that have practical implications for teaching. Research has found that:

- the brain plays a role in learning,
- **the way the learning environment is constructed makes a difference,**
- **learning is based on the associations or connections we make,**
- learning occurs in particular social and cultural environments, and finally,
- **the different ways people think and feel about their own learning affects their development as learners.**

These ideas provide a framework for teaching practice. As we discuss below, teaching involves assisting learners by organizing the classroom environment, structuring tasks and activities, and facilitating how students interact in the classroom. The more teachers understand the basis for learning theories, the better they can determine when and how these ideas might be useful in the classroom. Simply put, theories are explanations. These theories can be used to understand our own ideas about learning better and to help to explain how students learn.

The Brain Plays a Role

Our brains are set up to process information coming in from the outside world, to make sense of these stimuli, **and to draw connections.** Neuroscientists have found that different parts of the brain perform different functions, and that learning actually changes the physical structure of the brain by expanding the brain's capacity. We know that the development of the brain is lifelong and not predetermined at birth or even within the first three years of life. We also know that individual learners process information differently. This influences how each of us handles visual, aural, verbal, or tactile information. **Information is easier to understand and use when it is introduced through learning pathways that are better developed.**

Learning Is Based on Associations

Cognitive scientists have demonstrated how learning is a process of drawing connections between new information and what is already known. We learn by taking in, organizing, and storing information, and retrieving it at the appropriate times. **For learning to occur, new ideas must be related to old ones.** For this reason, prior knowledge is important to the learning process: People make connections and draw conclusions on the basis of what they already know and have experienced. **Teachers can influence this process by organizing information and helping learners access their prior knowledge and draw connections to new material.** Becoming aware of the central ideas in a subject area, and of how they relate to each other, can also help learners to make sense of information and use it more flexibly.

The Learning Environment Makes a Difference

As the debates among early philosophers suggested, learning involves both internal development and external interactions with the environment. People learn by making sense of the environment and stimuli around them. **Behaviorists taught us that greater perceptual development and learning occur in environments that are rich with stimuli and provide feedback in response to a learner's efforts. Learning is also enhanced when content is relevant to students' lives, when teachers provide opportunities to build understandings and practice skills, and when students have choices that are interesting to them.** In addition, access to teachers and peers who can model, explain, discuss, or critique shapes the learning process.