

# MOTIVA

## *Learning Model*

The Principles and Concepts of Constructivist Learning used in MOTIVA Training

*“Tell me and I will forget*

*Show me and I will remember*

*Involve me and I will understand*

*Let me do it and I will teach others.”*

*Modification from Lao Tzu, circa 500 BC*

**Rev 2**

# Constructivism in Learning

## The Ten Principles of Constructivist Learning

*The following Principles are drawn verbatim from a paper by Prof. George E. Hein from Lesley College Massachusetts during the CECA (International Committee of Museum Educators) Conference in Jerusalem, Israel, 15-22 October 1991.  
See <http://www.exploratorium.edu/IFI/resources/constructivistlearning.html>.*

- 1. It takes time to learn:**  
Learning is not instantaneous. For significant learning we need to revisit ideas, ponder them try them out, play with them and use them. This cannot happen in 5-10 minutes.
- 2. Learning is an active process in which the learner uses sensory input and constructs meaning out of it:**  
Learners need to do something, because learning involves the learners engaging with the world.
- 3. People learn to learn as they learn:**  
Learning consists both of constructing meaning and constructing systems of meaning. each meaning we construct makes us better able to give meaning to other sensations which can fit a similar pattern.
- 4. The crucial action of constructing meaning is intellectual:**  
Constructing meaning happens in the mind. We need to provide activities that engage the mind as well as the hands.
- 5. Learning involves language:**  
The language we use influences learning. People talk to themselves as they learn, and language and learning are inextricably intertwined.
- 6. Learning is a social activity:**  
Learning is intimately associated with our connection with other human beings, teachers, peers, and family. Conversations, interaction with others and collaborations are an integral aspect of learning.
- 7. Learning is contextual:**  
We do not learn isolated facts and theories in some abstract ethereal land of the mind separate from rest of our lives. We learn in relationship to what else we know, what we believe, our prejudices and our fears.
- 8. One needs knowledge to learn:**  
It is not possible to assimilate new knowledge without having some structure developed from previous knowledge to build on. The more we know the more we can learn.
- 9. Learning is not the passive acceptance of knowledge that exists "out there."**  
Learning involves the learner engaging with the world and extracting meaning from his/her experiences

**10. Motivation is a key component in learning.**

Not only is the case that motivation helps learning, it is essential for learning.

## **Practical Applications of Constructivist Learning**

**1. Student autonomy and initiative are accepted and encouraged.**

By respecting students' ideas and encouraging independent thinking, teachers help students attain their own intellectual identity. Students who frame questions and issues and then go about analyzing and answering them take responsibility for their own learning and become problem solvers.

**2. The teacher asks open-ended questions and allows wait time for responses.**

Reflective thought takes time and is often built on others' ideas and comments. The ways teachers ask questions and the ways students respond will structure the success of student inquiry.

**3. Higher-level thinking is encouraged.**

The constructivist teacher challenges students to reach beyond the simple factual response. He encourages students to connect and summarize concepts by analyzing, predicting, justifying, and defending their ideas.

**4. Students are engaged in dialogue with the teacher and with each other.**

Social discourse helps students change or reinforce their ideas. If they have the chance to present what they think and hear others' ideas, students can build a personal knowledge base that they understand. Only when they feel comfortable enough to express their ideas will meaningful classroom dialogue occur.

**5. Students are engaged in experiences that challenge hypotheses and encourage discussion.**

When allowed to make predictions, students often generate varying hypotheses about natural phenomena. The constructivist teacher provides ample opportunities for students to test their hypotheses, especially through group discussion of concrete experiences.

**6. The class uses raw data, primary sources, and manipulative, physical, and interactive materials.**

The constructivist approach involves students in real-world possibilities, then helps them generate the abstractions that bind phenomena together

## References

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