

# **Promoting Learning & Understanding in the Classroom**

## **Introduction**

In this paper, I reflect and focus on two concepts proposed by Bransford, Brown, and Cocking (2000). I will first discuss what learning is and also the ways in which learning occurs. Second, I address teaching methods that support learning. Knowing how students learn while being able to provide methods that support learning will promote understanding, and ultimately true learning.

## **What Is Learning?**

According to Bransford et al. (2000), students come to a classroom with preconceived ideas about how the world works. These ideas may be true or untrue. For students to be competent, they must have factual knowledge, accurately understand those facts within various contexts, and be able to organize those facts in order to apply them. Teachers must draw out the preconceived ideas students have in order to discover which ideas are helpful, and which ideas are misconceptions and need to be reformed. Learning cannot occur without understanding, and understanding cannot occur without proper data (facts).

When teaching students, jumping from topic to topic without organization or application hinders growth and the development of learning. Educating students with depth instead of breadth within a subject can foster true learning. This can prevent an overload of fact-based information and promotes application of knowledge. True learning occurs when students are expected to apply their fact-based knowledge in various contexts (Bransford et al., 2000).

Metacognition is a useful process learners can use to be thoughtful and conscious when problem solving. This is the process of assessing oneself during the problem solving

stage. According to Bransford et al. (2000), expert learners are more likely to use their background knowledge in a thoughtful, deliberate way when in the process of solving a problem; they connect known facts to draw accurate conclusions. Novice learners, on the other hand, have less experience connecting facts into meaningful data. They may see learned facts as disconnected information leading nowhere. As a teacher, it is important to model metacognition (Bransford et al., 2000). Students need to learn problem-solving skills by example. When experts verbally express their thought process when encountering a problem that needs to be solved, they demonstrate use of the information they already know, and are able to connect this information. Students can learn how to critically think, recognize patterns, and apply data when metacognition is demonstrated.

### **What Teaching Methods Support Learning?**

Teaching can be done using multiple methods. For example, applying technology, lecture, skill based (hands-on), inquiry based, and group (or individual) learning are all useful means of educating students; students learn in various ways. Technology can be a very useful tool in aiding students in understanding content because it can provide hands-on, visual, auditory, and conceptual learning. Using a multitude of teaching methods allows students to apply what they have learned in various contexts. According to Bransford et al. (2000), cross-transfer is imperative for competency. Using multiple teaching methods and allowing students an active role in their learning will contribute to the transfer of their data set.

Developing classroom norms and making a classroom learner-centered also supports learning (Bransford et al., 2000). A classroom can model a supportive, safe, and enthusiastic community where learning takes place. Focus should be given to the subject, why it is taught (understanding), and what mastery looks like. Doing so while

using formative assessments can allow a teacher to appropriately monitor students and their learning.

Lastly, motivation is a huge factor in the learning of students. Students are much more likely to learn if they believe what they are learning is useful and/or if they believe it will help others or their community (Bransford et al., 2000). To motivate students, it is important to demonstrate the usefulness of what they are learning. This can be done by using analogies to everyday life. Allowing students to transfer their knowledge in various real-life situations will contribute to retention.

### **Conclusion**

Students learn by connecting pre-existing knowledge to make useful interpretations that apply to various contexts. If students are overloaded with facts, they may miss out on understanding and therefore learning; the depth of a topic should be taught instead of breadth. Applying metacognition throughout the process of problem solving can promote understanding and learning. Learning is supported by using multiple styles of teaching to contribute to crossover. Learning is also supported by developing classroom norms that support understanding, and by motivating students.

### **References**

Bransford, J., Brown, A.L. & Cocking, R. R. (Eds.), *How people learn: Brain, mind, experience and school*. Washington, D.C.: National Academy Press. Retrieved from <http://www.nap.edu/openbook.php?isbn=0309070368>