MEANINGFUL LEARNING

by:
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Meaningful learning means to help students to learn how to recognize and solve problems, comprehend new phenomena, construct mental models of those phenomena, and given a new situation, set goals and regulate their own learning and use technologies to engage students in active, constructive, intentional, authentic, and cooperative learning.

It is a classroom which allows a student to play the role of an experienced co-researcher rather than of someone with all the answers. The teacher gives enough hints and poses probing questions; offers encouragement for good thinking, not just for right answers. Treat answers, right and wrong, as discussion topics until the class – the research team - reaches a consensus.

Here, the goal is for students to experience mathematics as a process of finding and connecting ideas so that justifying ideas and problem solving become more important than the actual solutions; the teacher spends time in planning and thinking of how students might address the problem under investigation; and the teacher leads students to know that the thinking and problem-solving skills they develop can serve them in all aspects of their lives.

The effectiveness of a teaching strategy and method can be measured in the students’ ability to perform the desired competencies. It should transfer learning and use whatever concepts and skills learned to solve a similar or related problem; learners can accomplish tasks that require higher order thinking skills, and appreciate the application of the concept or principle to the real-life situations.

References:
https://eric.ed.gov/?id=ED539399
http://advan.physiology.org/content/25/3/145.short#sec-2