METACOGNITIVE STRATEGIES IN TEACHING MATHEMATICS

by:
Rochelle B. Almodal

In the 21st century, teachers use various teaching strategies and methods to develop and transform the students’ ability. Among those strategies, metacognitive strategies are effective in teaching-learning process. It refers to methods used to assist students with understanding the manner in which they learn. It implies measures intended for students to think about their thinking. Using metacognitive strategies in teaching can positively influence the students by assisting and helping them to develop their own plan in learning information.

Metacognition can be used by teachers in teaching students how to process their progress in learning, approach a learning task, use appropriate skills, and strategies to solve complex problems, and monitor learning comprehension. Teaching Mathematics using metacognitive strategies open possibilities to students to be mindful of their own techniques and steps in learning Mathematics. It is the teacher’s role to teach the students what else they can do outside their zones.

The focus of metacognitive strategies in teaching Mathematics is for the students to boost their learning power, reflect and increase achievement. Some students dislike Math and don’t get excited about formulas and numbers because they are having difficulty in understanding the subject, poor instruction from the teachers, need more time to understand. Metacognitive strategies allow to monitor the cognitive strategies in achieving a particular goal. Students should be in a position where they ask themselves about what they know, what they don’t know, and how well they know. In this case, they can track their progress.
Strategies that are most commonly used to embed metacognitive strategies are developing rubrics, questioning, modelling and supporting students to monitor, plan, and evaluate their learning/work. Integrating metacognitive strategies in teaching Mathematics will assess the student’s ability in choosing a particular approach to solve a problem. In the contribution of student’s achievement, teachers are the most important factor as they have the power to use their teaching approaches and strategies to increase the mathematical knowledge and improve outcomes.

Educators can actively engage students in knowledge construction through metacognitive strategies. Many researchers have highlighted the improvement of the students’ academic performances when it comes to their problem-solving skills, communication skills, and critical thinking skills. In order to produce lifelong learners, teaching strategies must be updated and appropriate.

It is important to understand the different ways student can actively learn without hating nor forcing themselves.

References: