Promoting Higher-Order Thinking Skills with Engagement and Motivation

Higher-Order Thinking Instructional Strategies

TLC Educational Solutions Strategy-based Professional Development workshops are specifically designed to provide the skills needed to teach and interact with today's students. Educators are challenged to keep students motivated and engaged in the lesson and classroom setting. Students who learn how to think about their thinking are more capable of working at a higher cognitive level and applying their learning to new situations. This is a pathway for becoming a Lifelong Learner.

Workshop Sessions

Building Metacognition "Reflective Learning"

In this session, the approach for building metacognition (simply put… "thinking about your thinking") is shared. This approach provides students with a toolbox of strategies that allows them to think about the way they learned something, such as how they solved a problem, and apply it to other types of problems. Because these strategies do not come naturally to a lot of students this session demonstrates how to explicitly teach them.

Developing Higher-Order Instructional Approaches

This session focuses on Learning Experiences that require higher-order thinking and give students the capacity to process information at a higher level of cognition. Thinking Maps are introduced to provide a learning that parallels processing of information in the brain. Cognitive Demand classification is provided to help teachers identify activities through which students learn and can apply that learning in new situations.

Thinking with Strategic Questioning

Teachers and students can use Strategic Questioning strategies to increase higher order thinking, problem solving, and creativity. These strategies allow students to gain confidence in both answering and asking questions that shift from the "What" to the "How…", "Why…", and "What other…" to name a few. Questioning strategies help students make sense of concepts and apply what they have learned.

Scaffolding Instructional Strategies

Scaffolding involves giving students support at the beginning of a lesson or when learning a new strategy and then gradually turning over responsibility to the students to operate on their own. An increase in student ownership of their own learning is the ultimate goal.

*Building Metacognition *Reflective Learning"*

- Understanding cognition and metacognition
- Teaching students about metacognition
- Applying Think-Aloud and Question-Answer Relationship strategies to the classroom
- Modeling metacognitive strategies

Developing Higher-Order Instructional Approaches

- Teaching Higher-Order Thinking Processes
- Developing the Problem-Solving Loop
- Transitioning from Lower-Order Thinking -**LOTS** to Higher-Order Thinking -**HOTS**
- Utilizing Thinking Maps to support brain-functional learning
- Applying Bloom's Taxonomy and Costa's Levels of Rigor
- Raising instructional levels with Hess's Cognitive Rigor Matrix

Thinking with Strategic Questioning

- Developing questioning skills in students
- Building skill in higher-order teacher questioning
- Creating Costa and Bloom HOTS questions
- Engaging students with higher-order questions
- Transitioning "Wait Time" to "Think Time"

Scaffolding Instructional Strategies

- Applying the Gradual Release of Responsibility Model to scaffolding
- Utilizing verbal, instructional, and procedural scaffolding in the classroom
- Developing Scaffolding Instructional Techniques
- Transitioning from teacher generated instruction to student-centered learning