

Promoting Higher-Order Thinking Skills with Engagement and Motivation



Higher-Order Thinking Instructional Strategies



TLC Educational Solutions Strategy-Based Professional Development workshops and remote sessions are specifically designed to provide the skills needed for educators to teach and interact with today's students, "to stay on the cutting edge of their profession". Educators are challenged to maintain a classroom climate that has students clearly on task, actively engaged in the lesson, and thinking at a higher cognitive level. With the support of our **TLC Educational Solutions Training Resource Manuals**, which each workshop participant receives, step by step strategies are provided and can be incorporated into lessons the very next day. Whether at an on-site workshop, web-based workshop, or remote-learning session, we provide teachers and administrators with strategies designed to actively engage students in higher-order thinking. 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 what they are learning and how they learn. When they think about how they solved a problem they gain skill in applying those strategies to other types of problems. Because these strategies do not come naturally to a lot of students this session includes how to explicitly teach them.

Developing Higher-Order Instructional Approaches

This session focuses on learning experiences that require higher-order thinking and develop the capacity in students to process information at a higher level of cognition. Thinking Maps are introduced and offer tools for organizing information in the same way as the brain stores and processes that information. Cognitive rigor classification with specific examples 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.

Supporting Student Learning/Scaffolding Instructional Strategies

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

*Building Metacognition *Reflective Learning**

- Establishing the difference between cognition and metacognition
- Teaching students about metacognition
- Developing student metacognitive “thinking about your thinking” skills
- Applying Think-Aloud and Problem-Solving strategies



Developing Higher-Order Instructional Approaches

- Raising the cognitive demand of learning experiences with strategies that focus on higher-order thinking
- Developing a balance of Lower-Order Thinking (LOTS) and Higher-Order Thinking (HOTS) skills
- Incorporating a crosswalk of Bloom’s Taxonomy and Webb’s Depth of Knowledge as a guide to the shift toward higher cognitive demand experiences
- Applying Thinking Maps - graphic organizers that reflect how the brain processes information
- Utilizing instructional strategies that promote critical thinking and develop student capacity for processing information at a higher level of cognition

Thinking with Strategic Questioning



- Increasing teacher skills and strategies for higher-order questioning
- Engaging students with higher cognitive demand questions
- Developing higher-order questioning skills in students
- Expanding questioning skills with Costa and Bloom HOTS questions
- Raising awareness of the importance of “Wait Time” and “Think Time” to maximize the impact of higher-order questioning on learning.

Supporting Student Learning/Scaffolding Instructional Strategies

- Developing Scaffolding Instructional Techniques
- Providing for higher-order thinking instruction through the use of scaffolding strategies
- Increasing student independence by applying the Gradual Release of Responsibility Model
- Incorporating Vertical Learning strategies in the classroom
- Applying discussion techniques and strategies to develop student higher-order thinking and communication skills