Brain-Targeted Teaching®

A Brief Overview and Description of Brain Targets

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Overview. The Brain-Targeted Teaching® model provides teachers with a pedagogical framework for using research in the neuro- and cognitive sciences as well as evidence-based effective instructional practices to guide them in delivering a rigorous and engaging program of instruction. The model delineates six components, or "brain targets," for the teaching and learning process and describes research that supports each component.

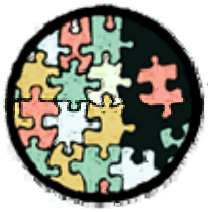
The Brain-Targeted Teaching®focuses on positive emotional and physical learning environments, the development of "big picture" concepts, the mastery of content, skills and processes, "real world" application of learning, and the continual evaluation of student learning. Fundamental to the application of the model is the integration of the arts to foster retention of new information, conceptual development, and higher-order thinking.

Brain Target 1: Emotional Climate

Brain research supports the notion that a positive emotional climate paves the way for higher levels of learning and performance. Creating a positive learning environment and eliminating factors that cause stress are essential to a teacher's instructional program.

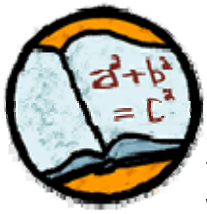
Brain Target 2: Physical Environment

The classroom environment can be a powerful tool for focusing students' attention and offering them a secure and supportive learning experience. Novelty in the environment can foster attention, and factors such as lighting, sound, and scents can enhance the learning experience for children.



Brain Target 3: Learning Design

This target encourages teachers to use content standards and curriculum guidelines to design overarching goals and concept maps and to display these learning goals and concept maps in visual representations such as graphic organizers. Such visual displays will give students "big picture" ideas or global understandings of the content or concepts, connecting these ideas to their prior knowledge and understanding. In a neurological process known as "patterning" the brain uses prior knowledge to categorize stimuli into concepts that are either familiar or novel and then combines these concepts to create new patterns of thinking and understanding.



Brain Target 4: Teaching for Mastery

Our goal as educators is for our teaching to result in students' mastery of content, skills and processes. This target makes use of what neuro- and cognitive sciences tell us about how information is encoded, processed, stored, and retrieved in working and long-term memory systems. The teacher's objective with this target is to develop ways to enhance long-term retention of important content through diverse and creative lessons. Integration of the arts into instructional activities is a useful tool for achieving these goals.

Brain Target 5: Teaching for Application

When students extend knowledge by applying it in real-world settings, they engage multiple and complex systems of retrieval and integration. With this target, we are seeking to strengthen and extend thinking and learning by applying skills and content in meaningful, creative, problem-solving tasks. Examples include conducting investigations and surveys, designing experiments, analyzing perspective, building projects, and engaging in improvisation through the visual and performing arts.

Brain Target 6: Evaluating Learning

Evaluating instruction is as important to the learning process as are deep and thoughtful learning activities. This target expands traditional types of assessments to include the use of oral and written probes, rubrics, student portfolios, student-generated products, performance-based assessments, and student self-reflections. Most importantly, the Brain-Targeted Teaching Model emphasizes that relevant and timely evaluation is an ongoing, two-way process that begins almost as soon as the students' first introduction to a learning unit. Feedback about performance is useful not only for teachers but also as a means for reinforcing students' knowledge.

What Next? By designing learning units that incorporate the six brain-targets, teaching and learning not only becomes more effective, it becomes more fun for both the teacher and the learner!

To review research on the Brain-Targeted Teaching® model, view video segments from teachers who use the model, review field-tested learning units, and download a free planning template, visit the web site:

www.braintargetedteaching.org