Many students fail to recall information during a test because they have been taught to look down at their own paper. When they do look down, access is shut off to their visual recall system. Typically they look down to their left, which stimulates self talk and might say, “I don’t even remember studying this.” They then might look to their right, which accesses self feelings and start feeling like a failure. Of course, when they walk out of the room where they took the test, they might look up and the information floods back, “just in the nick of too late.” We are very pleased that our second grade friend, Mark, and his classmates, now know a very important test taking strategy that will help them score higher on tests again and again. (For a step-by-step way to use the Eyes Up BrainSMART strategy see it in the strategy section of this article.)

Putting Brain Research to Work In Classrooms

Over the last 5 years in facilitating 400 workshops we have learned some key principles in guiding the transfer of the implications of brain and cognitive research into effective classroom practice. They are as follows:

- Pareto’s Principle - 20% of what you do gets 80% of the results (Koch, 1998)
- Teachers develop more positive beliefs about student learning only after they have a change in practice and see student learning and achievement increase, not before as once suspected (Guskey, 1985)
- Student achievement is more dependent on metacognition (thinking about thinking) and cognitive skills (thinking) than environmental conditions (Wang, Haertel, & Walberg, 1993)

The BrainSMART Model (Conyers & Wilson, 2000) focuses on five fundamentals of teaching and learning that may get 80% of the results organized in a systematic way. They are easy to use. As teachers use the strategies, students are equipped with the cognitive tools they need to learn more effectively. They are distilled from 1,000 sources and 50 years of learning literature in education, business, and psychology. The five components can be easily remembered using the acronym SMART!
- **State:** Create concrete experiences of learner success that result in optimism and high expectations (Seligman, 1995)
- **Meaning:** Ensure that learning experiences are relevant to the real world of the learner and engage visual, auditory, kinesthetic, and tactile learning styles (Caine & Caine, 1997)
- **Attention:** Inspire focused attention followed by engaged practice, reflection, and meaningful feedback (Sylwester, 1995)
- **Retention:** Teach in ways that activate highly effective memory systems by all students. Equip students with retention and recall tools they need until they are skilled at remembering needed information (Sousa, 1995)
- **Transfer:** Ensure everything learned is in the 20% that gets 80% of the results. Equipping students with the skills and schema to apply knowledge in other contexts (Bradford, Brown, & Cocking, 1999)

Four BrainSMART Strategies that you can use on Monday

The toolbox of 60 sample strategies (Conyers & Wilson, 2000) was developed in with busy teachers in mind. Teachers often use the sample strategies in the manual in professional development sessions. They create their own versions, however, when (Guskey, 1985) they notice that the students enjoy and benefit from use of the strategies.

**I Smart Pegs (K-12)**

**PROBLEM:** Your students are not able to readily recall information so that they can apply critical concepts, for example parts of speech.

**SOLUTION:** Give all students, particularly those who are more kinesthetic, a practical, portable system for retaining and recalling important information.

- **Step 1:** Ask students to please stand up.
- **Step 2:** Ask students to recall the 8 parts of speech.
- **Step 3:** Then ask the students to turn to the left and recall another piece of information.
- **Step 4:** Give them a list of critical items you are planning to teach next week.
- **Step 5:** Get students to mirror you as you
move down the SMART pegs attaching one word to each body part: (1) head - noun; (2) shoulders - pronoun; (3) chest - adjective; (4) belly - verb; (5) hips - adverb; (6) backside - conjunction; (7) thighs - interjection; (8) knees - preposition; (9) shins: (10) toes. (For the parts of speech you need 8 (a-h) rather than 10; later you’ll need to use these when you have more items for remembering.)

**SOLUTION:** Equip students with a simple, practical method for boosting recall of information.

- Step 1: Ask students how many windows they have in their home.
- Step 2: Observe where the students’ eyes move in response to your question. Then ask students to freeze.
- Step 3: Ask students to notice where their eyes are looking in response to your question. Note that most students are looking up.
- Step 4: Ask students if they’ve ever sat down to take a test and forgotten everything. Notice how many say yes. Then ask them where their eyes were looking when they forgot everything. Notice many of them will say that their eyes were looking down.
- Step 5: Explain to students that for most people, looking up switches on their brain’s ability to remember things that they have seen.
- Step 6: Show the students a mind map for one minute or so.
- Step 7: Ask students what they remember.
- Step 8: Take down the mind map and ask students what they remember. Prompt them by suggesting that they look up.
- Step 9: Practice this sequence a number of times until the act of looking up to help them remember becomes automatic.

**NOTE:** Many students will improve their ability to recall information using this technique. Research indicates that important information can be best stored in students minds when they are presenting from the students’ left side of the room. Remember that a student’s eye movements are often indicating a specific form of mental processing that they need to undertake in order to remember something. Asking for direct eye contact with the student can often shut down effective thinking and memory.

**II. Eyes Up (K-12)**

**PROBLEM:** Your students fail to recall and apply knowledge and skills they need to succeed when test taking.

**SOLUTION:** Equip students with a concrete cognitive structure for effective story writing and help students understand the elements of effective writing.

- Step 1: Choose a story that you and your students will enjoy.
- Step 2: Act out the story forcefully in your classroom, moving to different locations to anchor key points.
- Step 3: Ask your students to replay to you the key elements. Location, characters, problem, solution, moral of story.
- Step 4: Select a student to act out the story with you and ask students to contribute what happens next.
- Step 5: Complete the story and ask students to replay what happened.
- Step 6: Ask students to mind-map or draw the key elements of their own story.
- Step 7: Ask students to write their story.

**The Future Starts on Monday**

It may be decades before stand alone brain research can be proven to boost student achievement. However, as educators integrate the findings of cognitive research and the proven success of effective teachers, it is clear that there is much “we can do on Monday” that does work. Any teacher who sees improvement in student achievement as a result of applying good brain based strategies will agree. For now, just do it. That is, observe, adjust, and do it again until students learn.

Meanwhile, enjoy the exhilaration of seeing students succeed, and stay informed about the insights that the implications of brain research are bringing to light.

References