

Brain Based Learning - Key to Student Happiness ... and Success

by Tim Buckley

The ADHD diagnosis had not been coined when I was a kid. My parents' answer to a lackluster attitude and disruptive behavior was to add more discipline. Teachers and counselors merely shrugged and said: "He's not living up to his potential."

It wasn't that I was disinterested in learning. I recall a handful of teachers in my academic career that absolutely captivated my imagination. And guess what? I did well in those classes. In fact, my career path was greatly influenced by a whacky English teacher who would bring Julius Caesar to life by reciting passages from the top of his desk, with the blackboard pointer as his sword!

So, the lesson isn't how to fix disruptive, inattentive, or chemically unbalanced students. Rather, the lesson is more about the classroom environment. What can be done to embrace different temperaments and styles of learning? The short answer: "brain-based" education. It's not new, but it is radical compared to the standard fare in public schools today.

The following steps are needed to establish brain-based curriculum into schools, according to Joy Raboli, the administrator at Abiqua School in Salem:

- Absence of threat
- Nurturing reflective thinking
- Meaningful curriculum content
- Physical movement, to enhance learning
- Choices for students - how they learn and how they demonstrate their learning
- Adequate time to thoroughly explore and use information and skills
- Enriched class environment and use of the outside world as an adjunct
- Collaboration, rather than strictly individualized learning
- Immediate feedback
- Mastery and application – using what they learn in real-life situations to cement learning into long-term memory.

Though Abiqua is a private school (K-8), Raboli said there's no reason that public school can't produce the same happy results – including reduced disciplinary issues and improved academic performance. In fact, several teachers she has coached in the past decade are doing just that in the Salem/Keizer school district.

Absence of threat

This is at the top of the priority list because absence of threat at school is the keystone for brain-based education. And here's why: If the brain feels threat – whether real or perceived – the emotional center of the brain (Limbic system/brain stem) will short-circuit learning. Most of us have stories about the brutality of school life – verbal put-downs, feeling rushed, being excluded or ignored, bullying, overwhelming school workload, friendship problems and/or teacher putting students on the spot.

"Creating an environment for students in which they feel safe and accepted is the first step towards children enjoying school, as well as better academic achievement," said Raboli. "Achieving that goal means changing how the classroom looks, how students interact and how teachers teach," she added.

Raboli, who trained thousands of teachers in this method for years before accepting her current position at Abiqua, said that three things begin to create the structure needed for brain-based learning: establishing a class “family” or culture based on deep trust; teaching all subjects using a yearlong central theme, and encouraging students to demonstrate their knowledge in a variety of ways beyond standardized testing.

Enriched class environment

At Abiqua middle school, students gather a half hour before class starts to socialize in the “club house,” a common room where they read the daily paper, do online research or just catch up with friends.

Teachers model the behavior they hope to elicit from students. On classroom walls, H.E.A.R.T skills (Honor, Empathy, Accountability, Respect, and Teamwork) are permanently displayed and encouraged. Often, classes will recite together a pledge about these ethics, a pledge they create together at the beginning of the year.

“Experience has shown that once a school embraces these guidelines, there are two immediate changes,” said Susan Kovalik, founder of an institute for teaching brain-based learning method to teachers. “First,” Kovalik continued, “the number of discipline referrals falls by at least 50 percent, often times even more. And, average daily attendance increases to above 96 percent.”

Meaningful curriculum content

These type classrooms are distinctly uncluttered and yet comfortable. Besides the HEART display and a daily agenda, another wall is adorned with a mosaic of connected ideas which comprise the yearly theme: The Power of Change, for example, or The Power of Relationships. Around this central idea are associated satellite ideas that tie thematically but also cleverly relate to each other through the use of alliteration or association. Teachers develop the yearlong lessons, activities, field trips and tests around those themes, rather than relying on text books created elsewhere.

Collaboration

Instead of rows of desks, there are groupings of four students at a common table, encouraging collaboration and pooling of diverse talents towards a common learning goal. Where blackboards used to hang, there are Smart Boards™, a very slick interactive tool that doubles as whiteboard, an Internet screen and a composite display for students’ compiled response to topic discussion. The rest of the classroom reflects students’ artwork, relative to the themes, rather than a teacher’s attempt to decorate with random instructional posters.

Abiqua may be the only school fully organized around these principles, but a growing number of public school teachers are implementing similarly in their classrooms. Shannon Rediger, a 4th grade teacher at Chapman Hill elementary, has been using the brain-based learning technique for nearly all of the 16 years she’s been teaching in Salem schools. She said creating such an academic environment for students is more work for teachers, but she wouldn’t think of going back to the “traditional” way.

“I’ve found that the kids I have retain knowledge better and they test better,” Rediger said. Her theme last year: “A Pocket Full of...” consisted of satellite subjects: Predators (biology), Pioneers (history, Louis & Clark); People (themselves, their classmates, neighbors, the community); and Pine Trees (environmental issues, botany, wildlife). Even math can be taught around these themes. “Instead of a 30-minute-a-day unit on, say, frogs, I’ll have kids compose songs or measure their own jumps outside, then write their own math problems around that,” Rediger said.

“Your brain is always asking you, ‘So what? Why do I need to know this?’” said Raboli, a mentor as well as trainer for Rediger. “For information to be stored into long term memory, whatever you learn must be creative, useful or emotionally-based,” she added.

Reflective thinking and choices for students

Group discussion and field trips help to connect the themed curriculum to the real world. Every day, students are encouraged to read local papers and discuss their awareness of the world with others. Every year, students volunteer in a variety of local charitable organizations to get real-world experience to supplement their academics. In the past year, students at Abiqua have volunteered at local soup kitchens, Family Building Blocks and a veterinarian’s clinic. Group efforts have included a citywide collection and recycling of Styrofoam packaging material. “In Abiqua’s case, this is not a casual activity just to be ‘cool,’” Raboli said. “Rather, it is intended to establish a pattern of giving with students. Plus, using what they learn in real-life situations helps cement learning into long-term memory.”

Mastery and application

In the brain-based classroom, students have myriad ways of demonstrating what they understand about a topic through means other than written papers and standardized tests. Oral presentations, art or craft projects, or a theatrical performance can satisfy course requirements and, more importantly, build self confidence in students about presenting to an audience. It also further reinforces the applicability of what is learned to activities outside school.

Teacher satisfaction

Students are not the only beneficiaries; teachers also seem to find more job fulfillment in brain-based learning environments. “I was a traditional instructor for the first three years of my career,” said Rediger. “Once I learned to teach this way, I began to see my students in a different way. I spend 6 hours a day and I’m still geared up at the end of each day. I don’t want to miss a single day,” she added.

Rediger’s sister is a high school teacher who employs the same techniques, with equal enthusiasm and results. Their mother, Jeanie Williams, came out of a very brief public school retirement (30 years) to teach middle school at Abiqua. Last year, she was a recipient of the Crystal Apple award, given each year to a handful of exceptional teachers by the local Chamber of Commerce.

Results

The work of Raboli, Rediger and pioneer Susan Kovalik in brain-based learning has triggered a hungry international response – both in schools and business environments. Results speak for themselves:

- In 2002-2003, ten schools from across the US were awarded Comprehensive School Reform Grants to implement brain based learning at all grade levels. Comparing scores in reading and math over a two year period, 70% of the schools showed improvement in both, many of them showed increases between 11% and 30%.
- A similar project in six Texas elementary schools netted similar results. During a timeframe when district averages were flat or falling, five of the six brain-based learning schools raised their averages, some as high as 20% above scores from two years previously.
- Abiqua teachers assume everyone will pass Oregon’s state assessments even though testing is a minor sidebar to thematic instruction. But the level of achievement at Abiqua is remarkable because more than 60% of 3rd graders exceed those standards, about twice the percentage of students in the Salem/Keizer school district who excel. Likewise, 5th graders at Abiqua outscored their peers at local public schools by an even bigger margin, with more than 70% of Abiqua students exceeding state standards.

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