

# Bricks, mortar and learning

Much of this country's energy is expended on new educational theories, but I've seen firsthand that a new school structure can change behaviors and pave the path to learning — virtually overnight.

By Patrick Welsh

**L**ike many public school systems around the country, the school system in Alexandria, Va., where I teach has seen scores of education theories come and go like viruses. Aside from creating the illusion that school administrators have the latest secret to educating kids, the impact of these theories has been negligible and often counterproductive.

But at last, I have seen something that really does help kids learn, and it has nothing to do with theory. It is simply a matter of bricks and mortar and glass — a new T.C. Williams High School built to replace the 42-year-old building.

Mark Burke, who managed the construction of the new school and has been involved in 60 K-12 capital school projects in our area, gets it right in tying the actual environment to the learning.

"Many school systems overwhelmed with new students resort to stopgap measures and try to do things on the cheap. ... (But) doing things on the cheap for now will not only cost more money but will not help increase learning," Burke says.

The biggest stopgap measure today is the "on the cheap" use of trailers as classrooms.

**Space:** Alexandria did nothing on the cheap in building our \$100 million school, and the most obvious change is the additional space. While the number of students per class hasn't changed, there is much more space outside the classrooms. The halls are wider, with the passageways from one hall to another twice the size of those in the old school. The ceilings in the library and cafeteria are three times higher. In theory, the new school could have been substantially smaller had the planners wanted to pack students into tight quarters. But as reported in a study in California, where 1.5 million children are said to be in overcrowded schools, stuffing students into schools has a dire effect on both discipline and learning, especially for low-income children.

**Lighting:** The new school's most striking feature is the amount of natural light that floods the building. The new classrooms have wide floor-to-ceiling windows, and the walls of the most traveled corridors are mostly glass.

In 2001, the Heschong Mahone Group, an en-

ergy efficiency consulting firm in Fair Oaks, Calif., studied students from the same school district and found that those whose classrooms had the most natural light showed a 21% gain in learning rates than those in classrooms with the least natural light.

T.C. Williams sophomore Nikita Peterson says the natural light has what some might consider a supernatural effect: "It makes me want to come to school."

**Improved security and behavior:** The new school has without question improved the behavior of kids, allowing everyone to focus more on the task of learning. Associate principal Tammy Ignacio, who has been at T.C. Williams for 10 years, says the school "is much calmer than it has ever been. There are far fewer confrontations." Another bonus: Attendance is up.

In the same way that eliminating graffiti from New York's subways a few years ago helped improve behavior and discourage crime, a new school building, with its immaculate environment, can instill greater respect and civility in

students. But the 126 surveillance cameras can't hurt, either. They monitor every hallway and common area as well as the area surrounding the school.

Of course, some students bristle at the use of cameras. Fine. But the mere presence of these devices makes them think twice about antisocial behavior. And if a fight should occur, administrators can pull up clear evidence of what happened.

**Collegial cafeteria:** The heart of the new school is its cafeteria. In the old school, there were two 50-minute lunch periods, and for years students had been allowed to leave campus for lunch. Now we have four 30-minute lunch periods, and no one can leave campus.

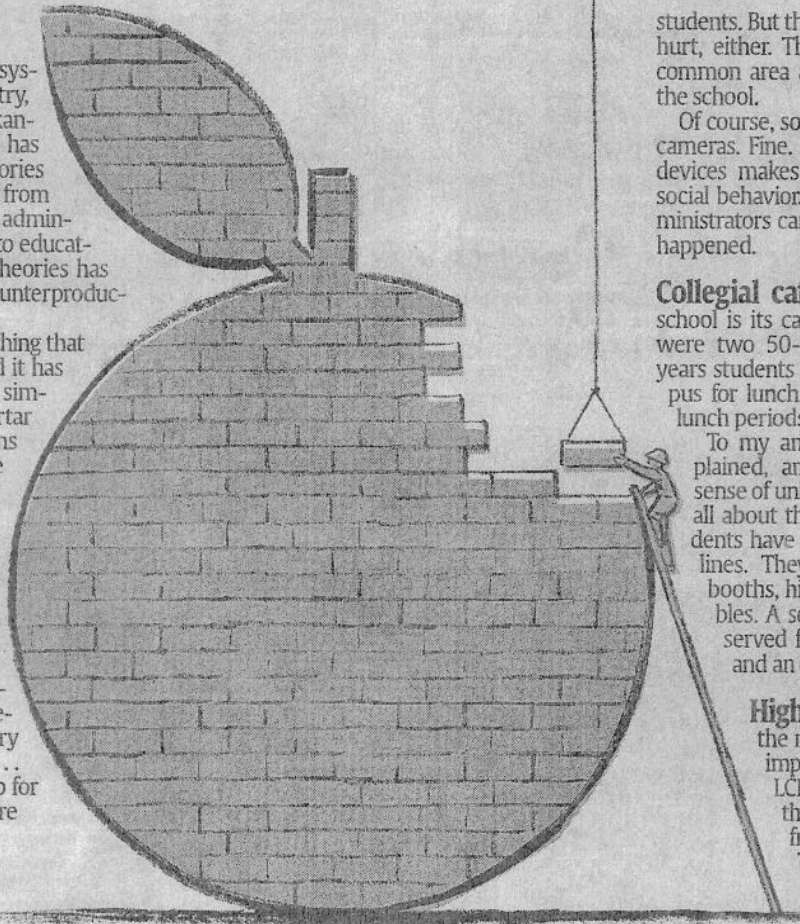
To my amazement, few kids have complained, and the cafeteria has created a sense of unity in the student body. Again, it's all about the atmosphere and choices. Students have a varied menu, with seven food lines. They have the freedom to sit at booths, high "cocktail" tables or round tables. A separate quiet dining room is reserved for anyone who wants to study, and an outdoor patio welcomes seniors.

**High-tech teaching:** As a teacher, the new learning tools are especially important. Each classroom has an LCD projector that can transfer anything I can put on my computer — from a student's paper to YouTube interviews — onto a 5 feet-by-7 feet screen. Even the most distracted students perk up when the LCD lights up.

The new environment can also be tailored to the subject matter. For example, earth science teacher Trisha Christopher is in a room twice the size of her old one, and it's built specifically for the course. The lab area and the class area are separate — thus making accidents less likely. These types of small success stories are spreading across this high school.

For all the talk about back to basics in reading and math, school boards and community officials must remember that the most basic component of education is the building — the physical environment — in which students spend anywhere from seven to nine hours a day. Unless we are willing to make that environment as conducive to learning as possible — and invest the money to see this through — all the studies and tests and educational theories might as well be thought exercises. Because sometimes, it just comes down to the bricks and mortar.

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By Sam Ward, USA TODAY