Connecting the Dots

The Unexplored Promise of Visual Literacy in American Classrooms

Schools must walk away from text-driven instruction and embrace developing technologies if they hope to stem the loss of students.

By Larry Myatt

Not too long ago, my wife decided to try one of those online-groceries-delivered-to-your-home deals from our neighborhood chain. She knew that setting up the template for the initial order would take time, but she expected that she could just point and click and save us 90 minutes every weekend once that process was over. What surprised her and me (enlisted to help) was that we saw only a brand name in script, a size selection, and a price. There was no click down for an image, packaging color scheme, company logo, dairy maid, ear of corn, giant with an earring, etc. Just a three-word description of the item

— "Tom's Toothpaste-w/whitener" — size, and price. Suddenly, we were both challenged to try to visualize and choose the precise products that we had routinely been selecting off the shelf, sometimes for 20 years, as we whisked down the aisles on automatic pilot.

What has this got to do with education? Let me connect some dots, so to speak. The composition of the students in our urban classrooms has changed dra-

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Photo: Kristina Lamour-Sansone

matically. Long gone are the mythical days of the "general ed" classroom, with a large core of on- or near-grade-level students, a few outliers slower in their reading, one or two with mild learning disabilities, and the occasional second-language learner.

The inner-city classrooms I see these days may not have a single student who is reading at grade level among their 30 or so students. The classrooms are likely to have anywhere from four to 10 students with special needs, ranging from those who require minor accommodations to others who need teachers to make substantial adjustments to their planning, instructional materials, and assessments. The mix is also likely to include a number of students with behavioral challenges and, of course, six to eight whose home language is not English and who may have come from countries where their education was interrupted or minimal to begin with. Our shorthand in Boston for this challenging array of learners is "the new classroom," and the implications for instruction, teacher training and development, technology needs, and additional human resources are overwhelming.

Next dot? The dropout crisis. The scale of the problem is frightening. Boston is losing more than 1,500 high school age students a year to the streets. In 2007, *USA Today* reported that among the nation's 50 largest districts, three are graduating fewer than 40% of their students: Detroit, 21.7%; Baltimore, 38.5%; and New York City, 38.9%. Public school systems are hard pressed to address how they will stem the tide of disengaged youth.

Add one final complicating dot to this picture. The old wisdom goes, if you spend much time in high schools, you realize that in every hour, the best five minutes for most students occur during passing time. The hallways are where the real action is — home to lively talk, curiosity, engagement, relationships, and the passionate pursuit of "what's happening." Those frenetic moments between classes are increasingly characterized by the proliferation of personal electronics that connect, display, gratify, and inform — cell phones that transmit flashing images and texts, iPods, uploads, downloads, students racing to find available computers to search the Internet, e-mail, or instant message. While images and visual literacy are more prevalent for our kids, our instruction is becoming more text-driven, a function of the press to prepare students for the all-important testing formats, starting in the early grades and including dozens of state tests, SATs, APs, etc.

As Thomas West asserts, "more and more we insist on having our schools teaching the skills of the me-

dieval clerk — reading, writing, counting, and memorizing texts."[1] As a frequent observer of schools and classrooms, I have to agree with West that "clerkdom" has become the daily lot for too many young people struggling to find a hint of meaning or access into the "work" and swimming in text.

"Please listen, class." "Pay attention, now." "Follow along with me, I'm on page three." "Will someone read for us?" — students tell us with their body language, their passive disinterest, or their distracting behavior that they are struggling to be successful in our text-driven classrooms. More and more kids, across grade or subject areas, lean away and tune out of lessons that force them to listen, sort through page after page, write short responses, talk some, read more, write more, etc.
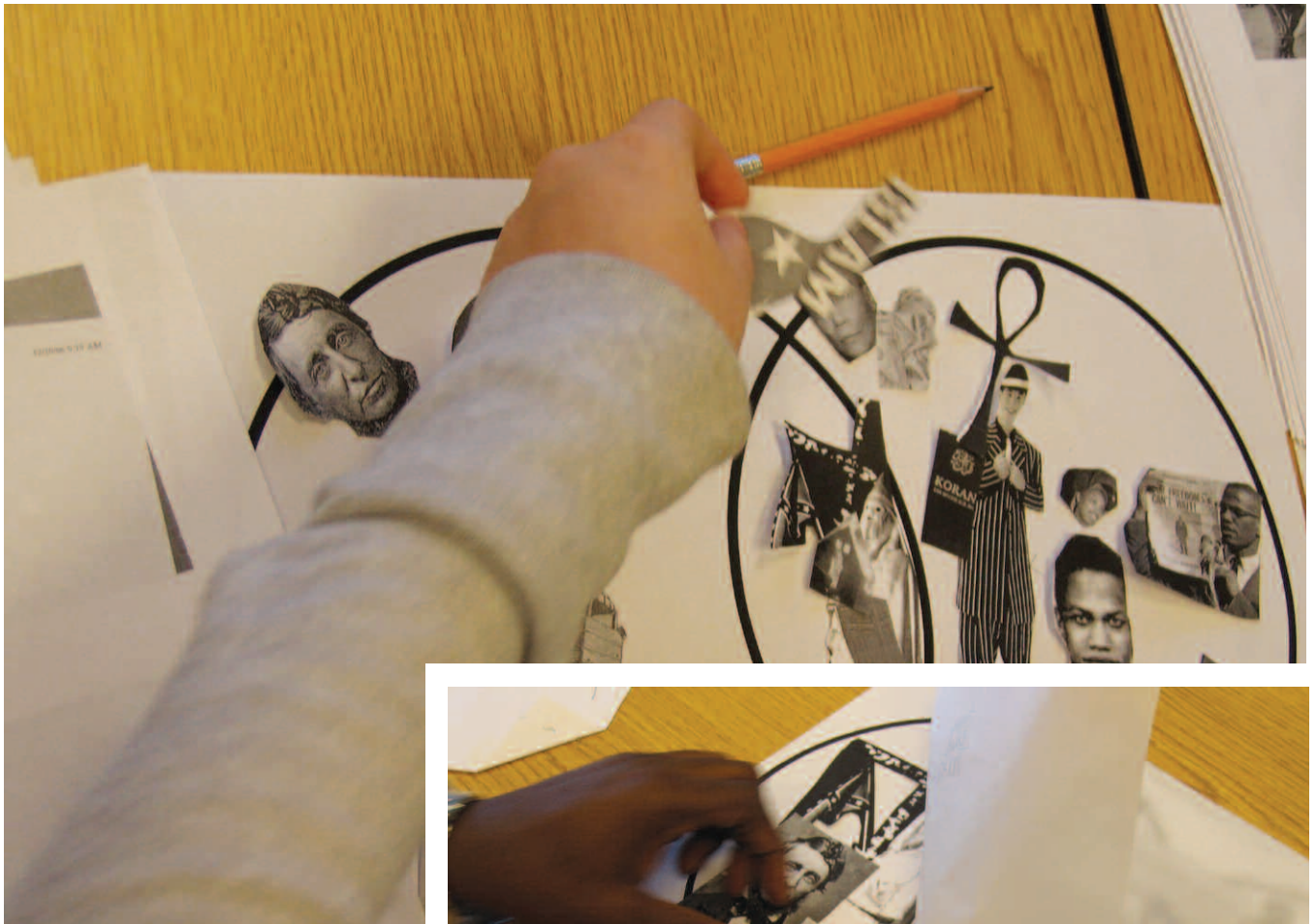
Allow the powerful visual thinking lying dormant in our classrooms to surface.

Back to online shopping. We seem to recognize that the marriage of popular culture and new technologies plays an unprecedented role entertaining and informing young people. But we are slower to realize that this union also influences how they learn. Most kids have learned to learn in these new ways first — and in the "old-school way" second, if at all. Add to this equation the determined resistance of many older educators to using technology in schools. Students are connecting globally, but school districts spend vast sums on textbooks, those relics of yesteryear that contain a fraction of the information available online and are outdated within days of publication. We are at a pedagogical crossroads and either have to get on board with other, more expansive ideas about literacy and the related uses of technology or continue to pay the price in the loss of young minds.

So, what makes me hopeful? A small but growing number of schools, educators, and thinkers have taken to heart the realities of the new classroom and their students' deep connection to developing technologies. These are folks who acknowledge, as West posits, that "machines have already become our best clerks. . . it will be left to the humans to maximize what is most valued among human capabilities and what machines cannot do — and, increasingly, these are likely to involve the insightful and integrative capacities associated with *visual modes of thought*."
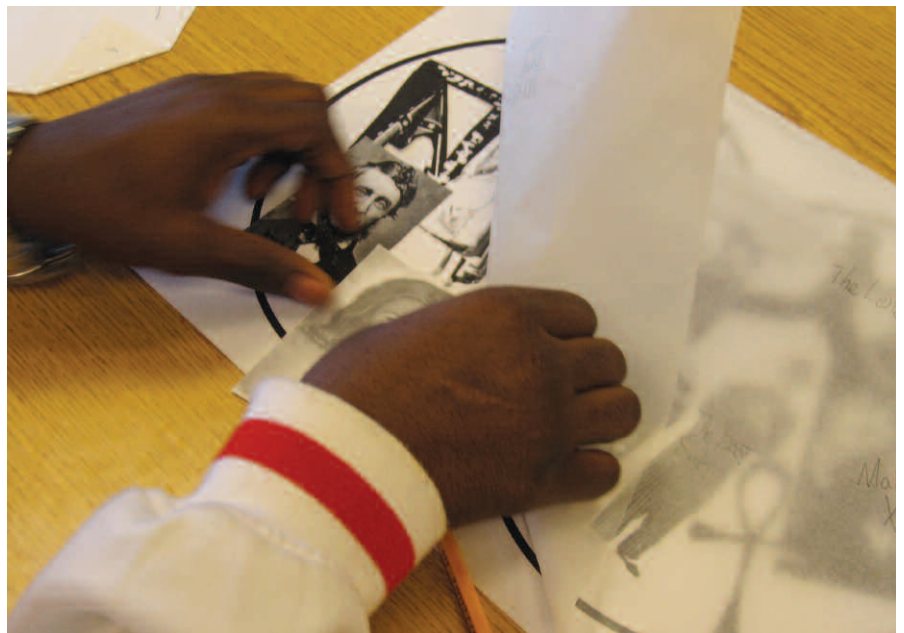
A decade ago, DeFanti and Brown summarized rea-

sons for the booming popularity of visualization:

> Much of modern science can no longer be communicated in print; DNA sequences, molecular models, medical imaging scans, brain maps, simulated flights through a terrain, simulations of fluid flow, and so on all need to be expressed and taught visually. . . . Scientists need an alternative to numbers. A technical reality today and a cognitive imperative tomorrow is the use of images. The ability of scientists to visualize complex computations and simulations is absolutely essential to ensure the integrity of analyses, to provoke insights, and to communicate those insights with others.[2]

It becomes more clear each day that scientists are not the only ones moving beyond text and numbers.

Among those making sense of these issues is Kristina Lamour-Sansone, founder of The Design Instinct, whose commitment to bringing highly challenging and disciplined graphic design values and applications into classrooms in a number of cities has shown exceptional promise. Working with the Boston High School Renewal Initiative, Lamour-Sansone is using a visual-literacy approach to reach students in substantially separate special education classrooms, second language learners, and students with behavior issues. Her visual-literacy approach liberates learning for the youngsters least likely to succeed with text-driven instruction. Lamour-Sansone works with teachers eager to plan lessons that turn students loose to design complicated, eye-catching visual arrays that reveal sophisticated reasoning and high levels of intellectual engagement. These organic "maps" that interweave concepts, skills, connections, and comparisons are then deconstructed and converted back into

Photos: Kristina Lamour-Sansone

thoughtful, highly organized outlines and drafts for use in chapter summaries, research papers, essays, and portfolio artifacts. A number of the teachers involved have gone above and beyond the initial expectations and are thinking actively about how to tap graphic design-based visual literacy to introduce skills and concepts.

Students who experienced learning in this way are looking for opportunities to employ what comes naturally to them. One need only look at videos of her students in traditional classrooms and their work in other classes centered on graphic design techniques to wonder how the same students can show such different attitudes toward the same material and concepts. Across grades and subject areas, this work is showing exceptional potential to draw in learners who struggle with text and language and for whom points of entry may have more to do with visual thinking than with straight text. The feedback from teachers and students is extraordinarily positive, and a more extensive integration of visual literacy activities is under consideration in Boston's High School Renewal alternative schools initiative.

Lesley University is planning a new Center for Graphic Design in Education that will be directed by Lamour-Sansone. One hopes that this means the graphical connection to learning and expanded notions and standards of literacy will gain more attention. Lesley's move also signals that there will not be a lowering of standards or an end-run around the significant skills students will need to learn and thrive in their work and private lives. Reading and writing remain central goals, but these educators are recognizing a smarter way to get there.

As West concludes:

Education, and self-education, is nothing without performance, results, application and (sometimes) official verification through some sort of credible examination. The inherent flexibility of the computer, and the surround of global technology, would seem ideal material for these tasks as well as for all forms of creative pursuit — many not possible otherwise. It would seem likely that *such developments would open up such pursuits to whole new sections of the population — especially those who could never pass the initial hurdles before.*[3]

Now, more than ever, we need to connect the dots and make way for the powerful visual thinking lying dormant within our classrooms to surface in order to make sure our young people have the chance they deserve to pass the hurdles we put in their way.

1. Thomas G. West, *Thinking Like Einstein: Returning to Our Visual Roots with the Emerging Revolution in Computer Information Visualization* (New York: Prometheus, 2004).

2. Thomas A. DeFanti and Maxine D. Brown, "Visualization in Scientific Computing," *Advances in Computers*, vol. 33, 1991, pp. 247-305.

3. West, op. cit., emphasis added.

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