



INNOVATION ABSTRACTS

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INFUSING LEARNING INTO THE PHYSICAL ENVIRONMENT

A Thought Experiment

Imagine yourself in a bare, colorless room with no windows or decoration. How would you pass the time? You might find a comfortable place to sit as you count the number of floor tiles and the number of ceiling tiles, or you might challenge your eyes to find patterns and pictures in the uneven paint. With this image of your students in your mind, picture them away from campus at home or out with friends. What is different about those spaces? How do they compare to the bare, colorless room? Chances are you imagined your students engaging with different stimuli. Visual stimuli are a constant presence in our lives. These inputs affect our mood, open doors to revelations, and help us become excited about life. What is increasingly unique about contemporary students is the incredible amount of input and stimuli they seek and consume as technology is integrated into their lives.

Now consider the walls of the classrooms, hallways, and common spaces on your campus. Are they bare, colorless spaces, or do they offer stimuli that today's students are seeking? Can those spaces be changed to provide visual input that students respond to while simultaneously supporting student learning and engagement?

How We Fell Behind

Many classrooms, hallways, and common spaces at colleges across the country have been suffering from neglect. For too long, educators have limited themselves to three options when considering what to do with campus spaces: 1) paint them and hope that the color is still in fashion by the time the last coat dries; 2) hang posters, or in periods of good fortune, some art; or 3) mount a bulletin board, those hopeful marriages of decoration and communication, which so often turn into clearing-houses for bad photocopies and neon flyers requiring a magnifying glass to read.

All of these are noble efforts, but each falls short of its potential. Consider the scenario where a student

group at your school creates a flyer (approximately one square foot) about Juneteenth to share with the student body. The flyer is taped to the wall of a classroom (200 square feet). This flyer is using one-half of 1% of the space available for communicating the story. [The space available is the entire wall.] Perhaps a faculty member decides to conduct an oral history project. A rich community tapestry is collected, edited, and published in a booklet, which is distributed from a hanging file mounted on a blank white wall. With nothing to call attention to it, students speed by the nondescript display without so much as a glance. In another example, during a recent "one college" campaign, the opportunity to spread greater awareness of the area's rich regional ecosystem goes unmet. A display case is prepared at no little expense. A month after the case is unveiled, it is collecting dust; and the few visitors who pause to inspect the case have to squint to read the fine print.

Infusing Learning Explained

With the goal of infusing learning into the physical environment, learning objects are placed in classrooms, hallways, and other campus spaces. These objects remain in the background, available at any time to students with a spare moment for glancing around.

Early childhood education uses a similar model with wall graphics of the ABC's, multiplication tables, or colors and shapes adorning every classroom. Research shows that children learn from this type of "environmental print." These stimuli complement student learning in these classrooms as they reinforce fundamental concepts.

We have much to learn from these techniques used by grade-school teachers. Using college-level subjects, infusing learning into the physical environment creates information-rich spaces where every second spent on campus brings a new opportunity to learn. Whether a student is engaged actively with a teacher, looking around during down time, or walking the halls with friends, learning is occurring. Digital technology now provides the opportunity to turn more of our campus space into learning spaces that all students, but particularly our new generation of students, will find compelling and engaging.



Infusing Learning Realized

With a goal of creating a campus that thrives well into the 21st century, Morton College is infusing learning into its physical environment as a key driver for how facilities are changing on its campus. Wall-sized graphics and panels that combine text and dramatic images are found in an increasing number of classrooms and hallways. Topics such as local history, immigrant life, Latino art, and the beauty of nature (such as a close-up of a grasshopper or a skeleton) are developed into wall-sized images. Additionally, exhibits and technology-enhanced common spaces are infusing learning into the campus buildings themselves. (To view pictures of the facilities described here, visit Morton College's Website at www.morton.edu, and click on the link to its publication, *Don't Know Much About History*.) At Morton College, assessment results show that, within these rich visual environments, students are increasingly becoming engaged in learning and excited about coming to campus.

Wall graphics are being installed in classrooms. A "Star Spangled Banner" classroom was created, using wall graphics and a unique carpet. The room boasts a bold and colorful design of lyrics to the "National Anthem" in calligraphy, an explanation of the evolution of the United States flag, and portraits of leaders who shaped U.S. history. Additionally, a more than 100-year-old, wall-sized, 45-star flag is mounted in a heavy-trafficked stairwell. From floor to ceiling in the "Civil War" classroom and the "Great Depression" classroom, dozens of facts, compelling photographs, maps, and charts detail the extent to which these events continue to affect our lives.

"Heritage Hall" is a major passageway for student traffic. This hallway features a series of wall graphics and exhibits about regional history. The walls tell many stories—e.g., about the Illinois and Michigan Canal, which gave Illinois the key to mastery of the American mid-continent. These exhibits not only include facts and images, but 3-D artifacts—e.g. a door from a WWII bomber, whose aluminum hull was manufactured at a local plant; a vintage stove and refrigerator made locally; and a collection of railroad nostalgia from the Burlington and Quincy railroad, which served as a main artery for local commerce for much of the 20th century.

Museum-quality exhibits continue to be installed across campus. Dusty, poorly displayed, and labeled exhibits are out. Exotic bugs, dissected brains, shells, birds, and other colorful wonders, each paired with design that begs one to stop and learn, are in. Dozens of LCD flat-panel displays have been installed around campus. These panel displays alternate between informational and educational content, much of it animated, all of it designed to attract attention and support student learning and engagement.

Nota bene

As one might anticipate, the process of creating bigger, brighter, and bolder facilities requires significant planning and investment. The process starts with setting the standards—contributed by scholars, generating buy-in from stakeholders, building a talented team, and exploring possibilities.

Faculty involvement has been key to the success of these projects at Morton. The expertise our instructors possess has been invaluable in shaping the pedagogy of using facilities for teaching and learning; their in-depth knowledge helps all parties recognize possibilities, and research and prepare the most poignant elements of a display. By partnering with faculty in developing these learning-centered facilities, we make great use of available genius and celebrate the talents our faculty bring to the classroom.

The highest caliber design talent should be used, especially for the make-or-break first attempts—e.g., exhibits and LCD displays are changed and updated easily; floor-to-ceiling wall graphics are static until changed or removed. Factual errors or spelling mistakes can doom a wall graphic, if not an entire initiative.

Amazing Potential

Ultimately, we care about outcomes. Morton has been conducting pre- and post-assessment of learning before and after students have the chance to interact with these displays. For example, staff will cover the walls in the "Great Depression" classroom before the first day of class, conduct a pre-assessment of what students know about the subject, remove the coverings, and conduct class as normal for the duration of the semester. No special attempt is made to teach from the displays—students are left to encounter these learning objects when and where they may. At the end of the semester, the walls are covered again, and a post-assessment is administered. Results have been amazing—in some cases, correct answers have grown well over 100%, especially when measuring content delivered digitally via LCD screens. These results should prove that Morton's refining its methods has improved student engagement and learning.

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