

Back to School of the Future: A Look at 21st Century Learning

BY BETH PENFIELD AND KAYLA ANTHONY

EXPERIENCE HAS TAUGHT US THAT ONE SIZE DOES NOT FIT ALL IN THE WORLD OF EDUCATIONAL FACILITY PLANNING. FACILITY PLANNING AND IMPLEMENTATION PRINCIPLES MUST BE GUIDED BY A SOUND UNDERSTANDING OF THE VARIOUS WAYS STUDENTS LEARN, THE SKILLS REQUIRED FOR THEIR SUCCESS, AND HOW FACILITIES NEED TO OPERATE AND PERFORM.

As our colleague, Greg Smith, explained in a recent article for the Educational Facilities Clearinghouse blog, 21st century learning is "... more than just handing out iPads." The fact is, many people equate educational progress with the advancement of technological devices, not to the skills required to be successful in tomorrow's economy.

School design in the United States has evolved over the past century, influenced by advancements in technology along with political and social movements, economic trends, and research into how students *learn* best.

21ST CENTURY LEARNING

Today's learning environments must support today's students. The focus of "modern" learning is both the mastery of subject matter and the development of 21st century skills to make young people successful citizens of the future.

The National Education Association ("NEA") has been tackling this subject for over a decade. In "Preparing 21st Century Students for a Global Society," NEA states:

"America's system of education was built for an economy and a society that no longer exists. In the manufacturing and agrarian economies that existed 50 years ago, it was enough to master the 'Three Rs' (reading, writing, and

arithmetic). In the modern 'flat world,' the 'Three Rs' simply aren't enough. If today's students want to compete in this global society, however, they must also be proficient communicators, creators, critical thinkers, and collaborators (the 'Four Cs')."

These four skills – critical thinking, communication, collaboration, and creativity – should be considered when planning and designing school facilities and learning spaces.

Aside from knowing what students are learning, it is vital for planners to understand how they learn and their school's teaching philosophy and educational vision. Students possess unique learning styles, which impact how they concentrate, process information, make decisions, solve problems, and interact with others.

A school's teaching philosophy should be unique to its institutional goals and speak to how, specifically, curricula will be delivered. Generally speaking, 21st century pedagogy is often characterized as a transition from a focus on teacher-directed, whole-group instruction to learner-centered activities and a collaborative culture of students at work. These activities must be accommodated within the planning of schools and their spaces, and one must acknowledge that much learning occurs outside of school.

21ST CENTURY SCHOOL FACILITY PLANNING TRENDS

Through a strong understanding of 21st Century learning, we have observed the following emerging trends and principles in facility planning:

- First and foremost, learning occurs inside and outside of the classroom. Multi-use spaces, extended learning areas, and outdoor classrooms support the extension of learning activities across a school facility and campus.
- Technology is incorporated to provide seamless access to consume and create content to support blended learning – where direct teacher instruction is blended with digital tools.
- The school is more than a facility for instruction; it is a teaching tool, living textbook, and catalyst for building community. Space is designed to inspire and invigorate and to directly incorporate learning content, while common spaces often represent the heart of the school.
- To support differentiated instruction and learning, spaces and furniture design support the need for continual reconfiguration of space to best adapt to students' and faculty members' needs. In this manner, classrooms at all grade levels and of all subject matter are often characterized as learning studios and incubators.
- Purposeful inclusion of dedicated workspaces that are professional in appearance, as well as transparent to the school at large, promote collaboration among faculty and also accessibility and approachability for students and families.
- School design prioritizes energy efficiency and sustainability. Students,

faculty, and community members are invested in the long-term impact of the facility on the surrounding environment. Facility staff and school business officers stress lifecycle costs and the balance between first-time capital and ongoing operational costs while maintaining an efficient use of resources.

- Evidence-based design research serves as a guiding principle for the performance goals, standards, and specifications for learning environments. This could include indoor air quality, access to natural and artificial light, acoustics and sound transmission, ergonomics, and material and color choice of finishes.

The evolution of school design, influenced by political, social, and economic movements and trends as well as technological and research advancements, helps us understand how students learn best and what environmental characteristics best support them. We have the opportunity to support the next generation of students through the provision of facilities that reflect modern teaching styles and building technology and design. This piece only begins to touch the surface and is intended to provide the platform for further discussion. ●



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