

# Agile and Information-Rich Learning Environments

By James Seaman, AIA, LEED AP

Technology and globalization have changed the required skill sets needed to thrive in the 21st century. Education has responded by shifting its focus from the teacher in the front of the classroom to fostering the student as the central figure in the learning process. Skills such as collaboration, creativity, and learning to learn are dominant themes in today's classroom.

The physical learning environment has changed little in the past 70 years. Many schools still use the traditional industrial model of isolated classrooms connected by narrow corridors. These schools have served several generations successfully but now lack the flexibility and agility needed for today's learners.

## Agility

Considering multiple learning-style profiles, an agile learning environment provides flexibility, adaptability, and a variety of learning environments on demand. In other words, yesterday's typical thirty-by-thirty classroom for thirty students and one teacher doesn't cut it anymore.

Teachers today must be able to vary their instruction in response to a student's individual learning preferences. Differentiated instruction expert and author Carol Ann Tomlinson states that teachers generally have the ability to adjust and adapt four factors: content, process, product, and the learning environment itself for creating the best learning experience.

If the classroom design is not agile, the space cannot adapt to an indi-

vidual or groups' specific needs. The design must allow for a variety of learning environments and grouping formats that take into consideration all learning-style profiles.

The following is a range of grouping formats that may occur, and should be considered in the design of today's classroom:

- Individual study and reflection
- One-on-one instruction
- Peer-to-peer discussion
- Small group work
- Large group work
- Teacher-directed instruction
- Student presentation



*An agile learning environment might include flexible furniture, transparency and a variety of seating arrangements (Henry Ford II High School, Utica Community Schools)*

The agility of a classroom can be severely limited with unnecessary clutter, or an "over-design" of the space. A solution is to limit the amount of permanent built-in elements. An agile classroom should be thought of as a stage – a place where things can easily be brought in or moved out to change the learning environment



*Hybrid learning spaces can be created through transparency and widening of corridors (Cotter Early Childhood Center, Dearborn Public Schools)*



*A seamless layering of technology provides flexibility for future needs (Skyline High School, Ann Arbor Public Schools).*



*Consider areas for relaxed and informal learning (Skyline High School, Ann Arbor Public Schools).*

effortlessly and expediently. Moveable components should be emphasized.

### Seamless layering of technology

Integrating technology with the building provides for a unified whole and, in theory, this allows the technology to be used effortlessly as part of the learning environment. Technology, however, is in a state of flux, and is rapidly changing. When designing the implementation of technology, districts must also consider its future removal and replacement. Technology should not be permanently integrated. Instead, technology should be thought of as a seamless layer as opposed to a static integrated element around which to design.

Data cabling is the backbone for the high-speed flow of information in a school. Choosing a cable management system can be a monumental task. There are many options that are available and each is designed to meet specific needs. The key in selecting the right system is flexibility. Also, a system will not last forever, so planning for its eventual removal needs to

be considered. Ideal systems allow for ease of access such as overhead cable trays and surface mounted raceways.

The most flexible data delivery system is wireless. With mobile devices such as laptops, tablets, and smart phones becoming more prevalent as learning tools, a school-wide wireless local area network (WLAN) is a must. Wireless technology can transform any school space, including the outdoors, into an information-rich learning environment. Because wireless can lack the speed that a wired connection can provide, wired technology should still be implemented in specific areas of the school.

### Think outside the classroom

The traditional notion of a classroom has been redefined, as educational environments become learner-centered and offer constant access to information from any space in the school. With learning not confined to individual classrooms or even the school building, classroom walls, in a sense, are beginning to erode. Other school spaces can be used as extensions for learning such

as corridors, gymnasiums, cafeterias, or even the outdoors. Expanding a school's footprint and taking learning outside can be as simple as adding benches around a shady tree, with access to libraries of information provided by wireless devices.

Transparency within a school is now a desired element that allows corridors or adjacent spaces to be passively supervised. This can be accomplished through interior windows, movable walls, or overhead doors. With transparency comes the ability to create hybrid areas such as casual collaborative spaces, individual reflective nooks, and zones for student presentations.

Learning can essentially happen anywhere, but agile environments that foster individual learning-style profiles, differentiated instruction, and response to 21st century technological demands can significantly enhance the learning process.

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