

‘Smart’ Spaces Aren’t Just for Classrooms Anymore

Intentional design creates casual learning opportunities on today’s campuses

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As new facilities were built to accommodate the growing enrollment, campus designers recognized that students congregate in the halls in groups of varying sizes, planning the next class or extracurricular project, or talking to a professor about how sports competition mimics business acumen. They noticed, perhaps, two faculty members sharing thoughts on academic subjects.

Each educational environment exhibits a distinct personality that supports and influences the student body. As educational institutions develop new spaces and buildings for university and college campuses nationwide, the need increasingly arises to provide spaces that both help fulfill each school’s educational mission and reinforce the vitality of campus life for both students and faculty.

How do you do that? First, let’s consider the evolution of educational spaces. Initially, educators and designers believed that students needed space outside the classroom to rest, regroup, congregate and interact since they relied on the concept of the professor being the disseminator of knowledge. With time, educators realized that learning involved the interaction that occurred outside of the classroom as well. This concept evolved from the idea of on-stage to off-stage learning, and it began to change the way schools and colleges were designed and constructed. As student demographics shift from traditional to non-traditional students and from on-campus residential to commuter

student, break-out spaces were flexibly designed to serve the new student body.

These break-out spaces or lounges provided a respite from the hustle and bustle of corridors and protection from adverse weather during non-class hours. They also allowed students to stay on campus for extended periods of time in comfortable environments to study, eat and discuss the latest topics with their fellow students or faculty members.

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What emerged was the reinforcement of the concept – still rele-

vant today – that learning happens all around a person on campus, and doesn’t just occur in a structured classroom setting. The idea that education happens only in the confines of a walled classroom or within the usual three-hour class time per week is an outdated concept. Learning occurs even in these impromptu conversations and in group study sessions, or when two faculty members have a discussion and share ideas in front of the students in a hallway. Learning happens while two students chat during a quick snack before class, or in the quad between the Arts Building and Science. This interstitial space could have a role in shaping well-rounded individuals who are the future of our society. They not only learn from the organized curricula, but also from each other and from working collaboratively across many departments and disciplines.

Serendipity Spaces

This progressive approach to all the other spaces on a campus, besides just classroom space, is a result of designing and building purposefully – something that every

facility decision-maker cares about. Good architects care, too. The advent of Building Information Modeling (BIM) has revolutionized the facility planning that takes place between designers and campus architects and school boards.

BIM allows educators to build before you build. BIM augments comprehensive planning by creating three-dimensional virtual buildings that are data-rich, down to the exact materials used and the quarter-inch measurements of the entire building being proposed. BIM is a tool that ensures institutions get the opportunity to make decisions early in the design process that results in having more efficient and useful buildings added to their campuses.

With BIM as the framework for the planning and design, work begins with some basic decisions. In addition to working within the established program and delivering buildings that address functional needs efficiently, BIM helps teams achieve a creative blend of spaces and forms that define these interstitial, bonus or even “*serendipity spaces*.”

Serendipity spaces are areas that encourage impromptu conversations between colleagues, or a teacher and student, or a coach and a student, or between one student and another. This calls for widened corridors and seating areas adjacent to windows or atriums. During the course of the day, as a student or teacher circulates through the facility, someone sees him or her and takes the opportunity to engage in a quick conversation. These conversations form the basis for greater collaboration and open the door to even greater understanding. These spaces foster team-based learning for students.

It is here, in these spaces, that open discussion and collaboration within educational environments augment the lessons delivered by the teaching professionals. These spaces are designed with user input to garner the best impact, integrate

appropriate technology, and offer spaces for academic support, study, research, and small and large group learning. What was allowed to happen by chance has now been programmed and implemented to encourage student and faculty interaction.

These new impromptu spaces are increasingly welcomed on campuses for the interaction they create, even though the trend in our society, due to social media’s popularity, is less and less physical human interaction. Instead, serendipity spaces are showing up at traditional academic institutions, outside classrooms, lecture halls and labs. The common denominator is that the spaces compel interpersonal skills. What’s more, casual learning spaces also end the silo-like nature of education – much like corporate America has done – to maximize the benefits created by small and large group interaction. Campus decision-makers are also “dismantling” these silos to form even more effective multi-discipline approaches. This, in turn, prepares today’s students for tomorrow’s multi-disciplined and diverse work environments.

Finding those Unique Solutions

Designing and defining educational environments should be undertaken with great respect for the time commitment, cost, and social/educational impact that each building represents. No two buildings are alike. No two teaching environments are the same. Every building is an opportunity to create a new and better space that fully meets the physical, financial, and educational needs of the unique audience it serves.

Intentionally designing shared space to enhance the overall learning experience needs to be both holistic and democratic. The recently completed Early Childhood and Parenting Education Center at Harris-Stowe State University, St. Louis, MO, is a good example of both. This project houses two dis-

tinct functions on the HSSU campus. The Child Development Department shares the building with a community-based child care facility. Because of that fact, HSSU wanted the center to create a statement of both uniqueness and hierarchy. The symbiotic relationship between an academic environment and a daycare facility allows the students to be engaged in observing, participating and learning about the care of children while they are participating in a degree-based academic program.

The distinctive geometry of the building was created to allow each distinct function to have its own façade and sense of arrival. The sweeping roof form is used to compress the scale at the daycare center while maintaining a gentle transition into the second floor.

Equally effective in fulfilling the mission is the building’s interiors. Inside, interstitial spaces are used as both transitional areas and play-ground area. By incorporating geometric shapes, the designer transformed both needs of the center to be engagement areas. A skylight and light cone penetrate the building. Lamp posts provide visual cues, directing occupants where to go and where they currently are.

The building has earned the reputation of being a neighborhood landmark and even an actual beacon for the community. The walls are clad with translucent polymer panels that allow the building to have a distinctive image at night. Additionally, the building fosters good will by exploring environmental stewardship through the use of roof gardens, water harvesting and light harvesting.

Another example is Eastfield College Satellite Center, a new facility in the Dallas County Community College District, Dallas, Texas. DCCCD requested a campus that married notable design qualities with high functionality. Strategically, the planners wanted a campus to be as inviting from the outside as it

needed to be inside. The goal was to get people to step inside what was to become the first satellite campus in that area of Southeast Dallas. Serendipity spaces were an obvious inclusion.

Needless to say, the structure had to be one part classroom-centric and one part a community building. This project's formal expression began to shape up from the onset of the project as the design team began to dive into the needs of the district.

DCCCD wanted the building to have an open and welcoming nature. The scale of the building was deliberately kept low, the mass was stretched longer in order to have a more embracing look and the use of large areas of glass allowed for the feeling of invitation. The building's concave form is a welcoming gesture of acceptance to the neighbors and new students. This created the opportunity to have a large central atrium and transparent entrance. This transparency also created additional opportunities for harvesting natural daylight in the building and having a central communal space.

As was hoped, the building now serves the surrounding Pleasant Grove community as well as students who attend classes there. It is the home of two local Chambers of Commerce that maintain their primary offices in the building, and it is an after-hours multi-purpose center and can accommodate groups of any size thanks to its large dividable community room. During the school hours, the multi-purpose room serves as break-out group study rooms and a student commons area and thus enhances and encourages ongoing group learning outside of the classroom or lecture spaces.

Maximizing Efficiency

In both these and other examples of effective space – in and out of the classroom – the call for sustainability is necessary for any facility planning effort. As stewards of nat-

ural resources, designers and campus architects alike seek to minimize the impact that new educational structures have on the environment, both during construction and throughout the lifecycle of the building. Good sustainable design practices incorporate LEED® or CHPS Schools to ensure sustainability criteria's metrics are achieved. Administrators and stakeholders inherit the building after completion and the use of resources for operations and maintenance begins for the life of the building. It is critical for design professionals to make intelligent decisions about natural lights, materials and systems to help manage and minimize energy costs over the life of the facility. As leaders in the community, schools districts and universities set an example of resource stewardship.

As mentioned previously, building information modeling or BIM also serves conscientious campus planners. Campus decision-makers now rightly request that all members of the building team use BIM in a way that integrates the work of each discipline. This approach ensures that the architect communicates with the engineer, that the general contractor communicates with all subcontractors and that all team members communicate with the university's decision-makers even before the first shovel of dirt is turned at groundbreaking.

BIM offers key benefits to a college's decision-makers – the least of which is the interstitial spaces. By creating and “walking” virtually through the gathering areas and open spaces of a multi-dimensional school building model, planners can get a good sense of the dynamic nature of these serendipity spaces and other building elements that are too important to forget. ■

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