



Smart Spaces

Why our learning environments must be re-invented

BY VICTOR RIVERO

Sean Corcorran is General Manager of Steelcase Education Solutions, a division of Steelcase, Inc., a global furnishings company designing modern and sustainable environments for workplace and academic settings. Sean has been involved in research and development of new education solutions including visual collaboration technologies, interactive whiteboards, and furniture, for classrooms and other learning environments. He has more than 20 years of experience in

design, engineering, product development, and innovation consulting. “Education environments must be re-invented,” he says. In this interview, he explains why.

Victor: We talk a lot about technology transforming education. Let's talk a little more broadly about creating 21st century learning environments, something you specialize in. Kids learn in huts in less affluent areas. Why is it important to

consider the overall learning environment?

Sean: The changes in education today are a challenge Steelcase has studied for years. We are engaged in various studies with schools at all levels, from kindergarten through

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can be used for learning, it's important to consider every corner and make even casual places, like hallways,

the space is new or old, large or small, the space needs to help students engage with the

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postsecondary, observing educators at work and testing design principles, product ideas and applications. We're going to school practically every day, listening and learning, working with teachers, students and administrators to create new, innovative, active learning spaces. Because all types of spaces

count. Learning is what happens when space, teaching methods and technology come together to encourage deeper thought, interaction and collaboration, regardless of whether or not that's in a small schoolhouse in Latin America or a state of the art lecture hall in America. Also regardless of whether

information. When students are passive learners, which we see a lot in the traditional row-by-column seating, it is harder for them to absorb the information being presented. Space, when designed with active learning in mind, can enable engagement.

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Victor: What makes for an effective, rewarding and inspiring learning environment - what are the key features, elements, components of one - what should an administrator put on his or her checklist?

Sean: Given the pivotal role of the classroom, technology and physical space must be integrated to support the pedagogies at work in the classroom to

create a more active and engaging experience for instructors and students. Administrators should look at the entire ecosystem as a tool for learning. Take advantage of new media and allow freedom of movement for the instructor, removing the “front of the room” and well as for students.



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Designing to support fluid teaching modes, for sharing and for visual and physical access are all ways to create

a better learning environment. The classroom literally needs out of the box thinking, and when viewed through the lens of this new learning ecosystem, the classroom transcends the box and becomes a much more effective learning environment.

Victor: In light of computers, desktops, mobile devices and so on - what are some of the technical considerations

in selecting the right components for a modernized school learning environment?

Sean: While we've seen technology evolve and

embraced in classrooms, the physical space supporting these technologies hasn't changed. Learning environments should be flexible, allowing students and instructors to access the technology in the room. Seating and desking solutions should accommodate the tools

students bring to class today, and whatever they might bring to class tomorrow by providing a large enough work surface for multiple technologies and access to power. media:scape was designed for a “walk-up and connect”

Learning best takes place in spaces that can easily morph based on teaching approaches and learning preferences.

Victor: How does learning best take place, in your opinion, or from your

were built for traditional, “stand-and-deliver, sit-and-listen” pedagogies in a passive learning setting.



experience. The technology is built into the media tables and enhances collaboration. media:scape combines a classic whiteboard, projector, and works with any software, it can also either be mobile or mounted. Long stretches of work are taking place and it's important to consider the levels of comfort and versatility.

observation of what really does work?

Sean: We've observed that inflexible layouts and furniture with limited mobility hamper interaction among students, instructors and content; in fact the environment can be a barrier as much as a facilitator. The majority of classrooms in use today

Technology access is highly variable from classroom to classroom and often poorly integrated. Instructors and students cannot easily leverage technology—either built-in or portable—to support problem-based pedagogies and hands-on learning. Large group discussions, small groups and lecture modes are

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examples of different classroom methods that our solutions are designed around. Learning best takes place in spaces that can easily morph based on teaching approaches and learning preferences.

Victor: Can you point to any efficacy studies about learning environments raising the levels of learning?

Sean: I can think of an example where a major university renovated a 1,600-sq.-ft. derelict lecture hall into what we call a LearnLab for their chemistry program. The room now seats 72 people at round tables and mobile task chairs so students can work together easily. Projectors, big screens, and tablet PCs

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support a new, more interactive curriculum. With no front stage, instructors move around and immerse

dropout rate compared to other subjects, but retention is up nearly 5% and grade performance is up 3-4%.



Victor: In your company literature you refer to this - so what exactly is a "smarter, active learning space"?

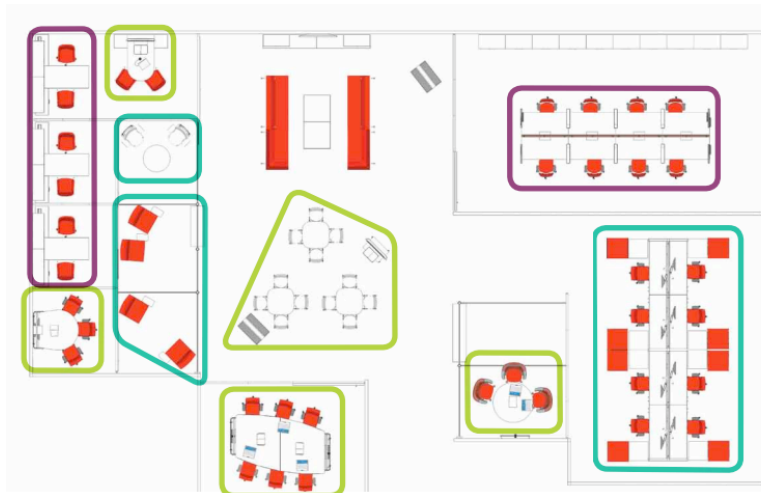
themselves in the learning environment with the students, who build Lego models to better understand chemical reactions or fashion a spectroscope from a cardboard box and a DVD. Sections are now hands-on, brains -engaged classes that have connected well with students. How well? Chemistry has a high

Sean: There's a new generation of students with different experiences and expectations than those of their parents. They're savvy and comfortable with technology and typically carry an array of technology with them. Rapidly changing technology continually

offers new approaches to learning and instruction. From digitized content to interactive technologies, education often defines the cutting-edge use of technology. At the same time, multiple pedagogies are being employed at every level of education. Many educators are embracing a more active and immersive style of instruction, engaging with students, leveraging technology and exploring more and varied educational strategies. Properly designed and furnished, every space can take advantage of the opportunities represented by continual change. That's what active learning is all about. It's the positive synthesis of space, technology and pedagogy.

Active learning environments improve concentration and focus and facilitate group engagement.

Victor: As you solicit feedback from educators, what sort of things are you hearing?



Sean: We get a lot of great feedback from educators and students. It's overwhelmingly positive. We hear most that active learning environments improve concentration and focus and facilitate group engagement. We hear that these new solutions make it easy to move in and out of different learning modes,

and that they improve the overall classroom experience, which, in the end, is what really matters.

If students and teachers look forward to being in the classroom, that's going to show in the quality of learning that happens in those environments.

Victor: What is the trend — or what are the trends —

as we move forward?

Sean: More than three-quarters of classes include class discussions and nearly 60 percent of all classes include small group learning, and those percentages are continuing to grow. Interactive pedagogies require learning spaces where everyone can

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see the content and see and interact with others. Every seat can and should be the best seat in the room. And it's not just faculty who are teaching. As more schools adopt constructivist teaching pedagogies, the "sage on the stage" is giving way to the "guide on the side." The classroom needs to support instructors moving among teams to provide real-time feedback, assessment, direction and to support students in peer-to-peer learning. I think we'll see the space, furniture and technology more easily

The classroom needs to support instructors moving among teams to provide real-time feedback.



adapting to the pedagogies and learning preferences of

each term and the classroom effectively supporting how instructors teach and students learn. That's where effective classrooms are headed. ■

Victor Rivero is the editor-in-chief of EdTech Digest.

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Steelcase Education Solutions

Email: pr@steelcase.com

www.steelcase.com