TEACHING AND TECHNOLOGY

Active Learning Needs Active Solutions

BY BOB HILL

When asked to picture a classroom or lecture hall, chances are the image most people conjure will include rows of fixed chairs or desks facing the front of the room. This basic classroom design hasn't changed much in the last one hundred years. Many educators have become conditioned to depend on such a standard-issue classroom, without questioning its effectiveness.

Turning to Movement to Improve Learning and Wellness

A one-size-fits-all furniture policy doesn't benefit educators or students. Even when furniture is falling short—when students are forced to use desks that aren't the right size, chairs are designed for easy stacking rather than proper spine support, or fixed stations inhibit any form of group collaboration—oftentimes school administrators seek temporary solutions rather than addressing the root of the problem.

The underlying issue is that the average classroom is designed for students to sit. Forcing students to sit limits learning and results in sedentary behavior, which has been shown to have negative long-term health consequences. Something as simple as furniture designed for movement can have a significant impact on an otherwise static learning environment.

Linking Movement and Learning

Scientists have been exploring the link between movement and learning for many years, proving that physical inactivity can impair developmental behavior and skills. According to the Association for Supervision and Curriculum Development (ASCD), movement can be an effective cognitive strategy to strengthen learning, improve memory and retrieval, and enhance learner motivation and morale.

Movement can also be credited with better health. Since the 1960s, obesity rates in the U.S. have tripled. Younger and younger people are now subject to diseases that were once associated only with older adults, and obese youth are more likely to have risk factors for long-term cardiovascular disease, such as high cholesterol or high blood pressure. Adding low-level physical activity such as standing into the classroom can make a difference.

Based on published studies of sit-stand desks with adults in office settings, adding even moderate amounts of movement can improve mood, reduce fatigue, and promote an overall sense of well-being. For instance, Dr. John Buckley with the University of Chester says that standing can burn fifty mor calories per hour than sitting; just four hours of standing per day can add up to twenty pounds of fat loss in a year. Standing also increases blood flow and metabolism, burns more calories, and improves focus and energy.

Staying Stuck in Static Mode for Generations

The real question is why our classrooms have been static for so many generations. When evaluating today's educational learning environments, surprisingly few provide examples of where the research encouraging movement has had any impact.

Even with the great technological strides of our times, students are still sitting in traditional classrooms with fixed chairs and furniture; such furniture has limitations that impact physical and mental development. Traditional furniture allows next to no variation in posture and leads students into a largely sedentary routine through significant portions of their day. Designing a well-integrated, collaborative, active classroom means moving away from fixed furniture.

Rethinking and Reconfiguring

Educators and students have found that the effortless and natural reconfiguration of the classroom brings a new dimension to teaching and the curriculum as students move quickly to create various formations without wasting lesson time. Maintaining student attention also becomes less of a challenge; students report being more attentive and alert if standing and moving about the room.

Furniture designed for movement gives professors flexibility and adaptability in the way they teach by enabling students to move about a classroom quickly and easily as needed. Desks with casters can be easily guided around a room to meet varying teaching approaches, from the 360° to the flipped classroom.

A traditional forward-facing room can be reconfigured in just moments to allow for greater collaboration among students, without the typical chaos that happens in classrooms that are cluttered with stationary desks and chairs. Individual desks can be maneuvered and adjusted on a whim for the person or task at hand, then just as quickly returned to a starting position.

Using Mobility to Support Varied Learning and Teaching Styles

The mobility supports the shift between lecture, discussion, and project work. Mobile furniture

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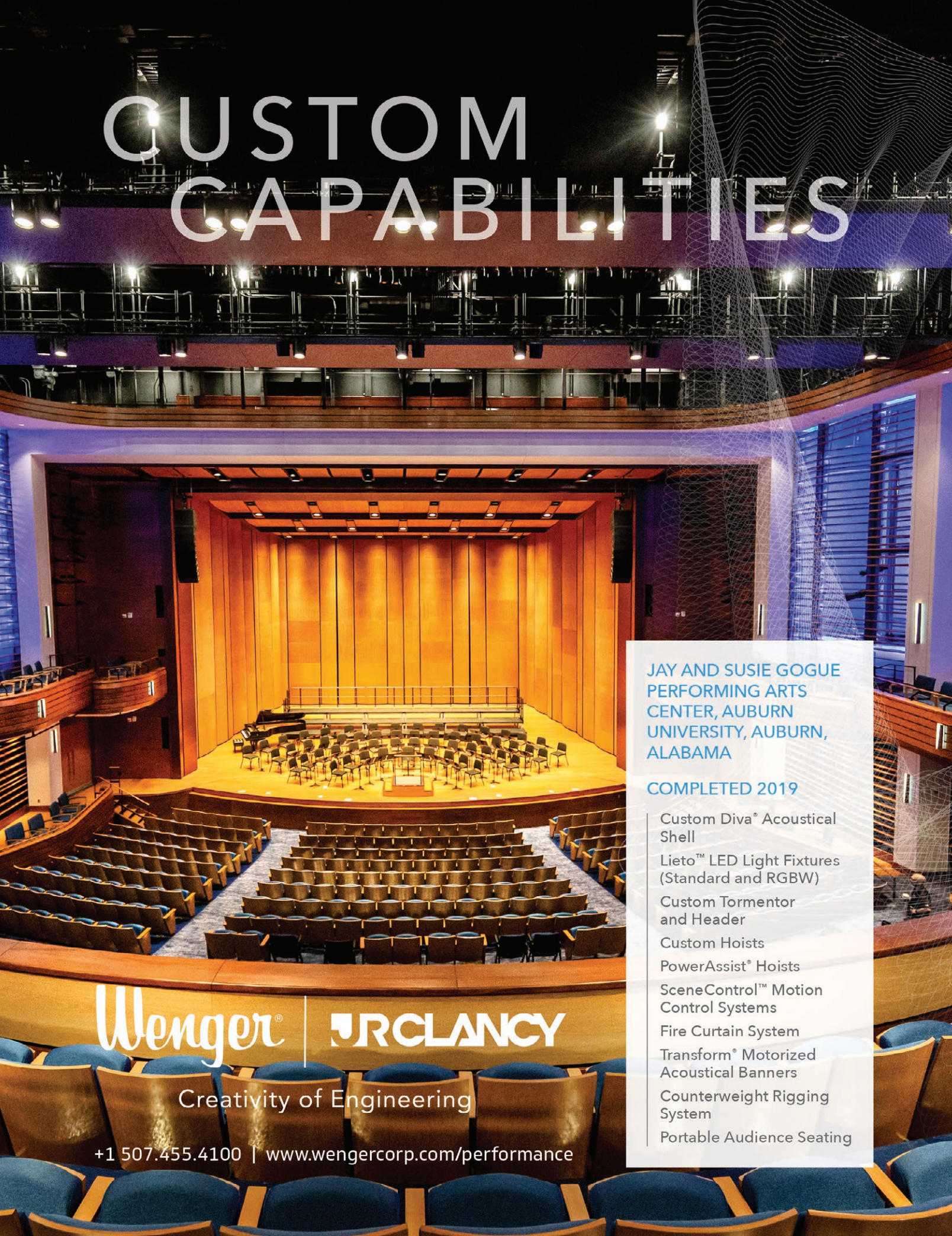

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fits a variety of classrooms, learning styles, and teaching techniques. Switching positions and having the ability to channel restless energy is also a key to an active learning environment. In the classroom, such flexibility can be achieved with student standing desks that adjust to the height preference of individuals and change easily, on the fly, without help from the instructor or facility managers.

Many standing desks offer height adjustment, allowing students to stand in a way that's uniquely comfortable; they can also move or fidget during class in a natural and non-disruptive way. The height adjustability can also be used to adjust desks to a collaborative level. With the use of stools, students can sit or stand at will, as their bodies demand, without breaking lines of sight to the instructor.

Uncovering Pedagogical Opportunities

The opportunities to use this type of furniture in a classroom are broad. A professor can give students a small group assignment and, within moments, students can be reconfigured into breakout groups, have all of their materials and belongings travel with them, and immediately collaborate on a project.

Professors can also respond to the energy in a room and recapture student attention by encouraging students to stand up or quickly reconfigure their desks, since standing has the ability to renew focus and reduce disruptions. The best solution of all lies in establishing a new behavioral norm that students may stand in the classroom and that both standing and movement is encouraged; movement will happen naturally, whether the curriculum directly encourages it or not.

Leveraging Natural Energy of Students

Creating a healthier classroom that's more conducive to learning requires leveraging the natural energy of students with curriculum that integrates movement and furniture. Adjustable-height, mobile classroom furniture has earned its place as a strong option for health and performance. Integrating low level physical activity, like that of using a standing desk, into the classroom can have a positive impact on student health, classroom engagement, and academic performance. An active classroom also fosters frequent physical movement and the ability to easily interact with others, bringing movement—however subtly—into classrooms and learning environments during lecture periods, group projects, test taking, or studying. Furniture that facilitates movement can finally give schools a means to achieve what research has already proven.

ABOUT THE AUTHOR: Bob Hill, Ergotron's Global Education Manager, is building greater awareness for how students, classrooms, and schools benefit from adjustable standing desks. Ergotron is empowering smart learning with mobile device charging systems, height-adjustable student and teacher desks, and AV mounts. To learn more, visit education.ergotron.com.

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