

Smarter school spaces

Classroom redesigns use color, furniture and light to engage more learners

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[District Administration, February 2016](#)

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Laguna Beach High School students in an environmental science/STEM classroom gather in a Socratic circle to discuss ideas and opinions. They change configurations daily, made possible in part by moving desks. It's part of the Laguna Beach USD plan to shift learning spaces.



Alexandria Public Schools leaders re-envisioned classrooms a few years ago when planning a new high school at their central Minnesota district. The educators were driven, in part, by students who refused to enroll in industry skills courses taught typically in classrooms tucked away in dark basements.

District leaders also hoped to change the stereotype that students who work with their hands are not college bound, says Julie Critz, Alexandria’s superintendent. “A lot of quality learning goes on in [shop class](#),” Critz says.

Now, the room—branded the “Design Build Lab”—has become a hallmark of the \$73 million Alexandria Area High School, which was funded through grants, community donations and a \$65 million bond. The lab, located next to the cafeteria behind a glass wall, also instills some pride in the small town that has a strong manufacturing sector.

Students learn about engineering and manufacturing with hands-on projects—designing parts on the computer and then creating prototypes with 3D printers and using other machines to produce final products. And the lab’s virtual welding machine teaches students that in-demand skill before they attempt it for real.

The way schools across the country use space has changed. The growing number of administrators now building and renovating education spaces have made student experience a top priority. Educators seek new designs that accommodate collaboration along with 1-to-1 programs and other technology initiatives.

Inspired by cafes and toy stores

When Ryan Bretag wanted to transform a mix of offices and storage closets at Glenbrook North High School into a student-friendly space, he sought inspiration from the broader Chicago suburb community. He visited coffee shops, toy stores and technology companies, such as Apple, to brainstorm how to create open-concept classrooms with micro-learning areas.

“We based it around the idea of form and function—how do people learn?” says Bretag, the associate principal of curriculum and instruction at Glenbrook North, one of two high schools in the Glenbrook High School District 225.

Get ready to redesign

Embarking on your own school redesign project? Here are a few tips:

- Bring departments together, from technology to facilities to teachers, for a “holistic” redesign approach.
- Consider everything. A team at one school kept all five senses (sight, hearing, touch, taste, smell) in mind while brainstorming renovations.
- Start small. Many schools piloted room redesigns as a way of testing ideas and encouraging teacher buy-in. Changes to a space can be as simple as purchasing a gallon of dry-erase paint or adding tables on wheels.
- Dream big—and adjust to the budget later. Often, a less expensive alternative can be found. And some schools find creative ways to fund projects: from the

general budget to local foundations and parent groups. Others launched capital donation campaigns or asked voters to approve a bond.

The school's "IDEA"—Innovation, Discovery and Engagement Area—is, at 950 square feet, barely larger than a standard classroom. The redesign cost \$40,000. After knocking down a few walls to open up the space, carpet was laid down to reduce sound echoes so multiple groups could work simultaneously.

Any teacher can reserve the IDEA room, and tables and chairs can be reconfigured in seconds to fit a wide range of activities: Students can face forward for a formal presentation or face each other for a discussion. Dry-erase paint covers one wall, inviting students to write or illustrate ideas. And a mix of café tables in another section of the room invites small- group collaborations.

The area's centerpiece is an Apple-style genius bar, where full-time instructional technology trainer Calley O'Neil assists students and teachers with "just-in-time support." With both a teaching and technology background, O'Neil has become more of a coach than a trainer.

Rather than simply telling students and teachers what to do, O'Neil guides them through a structured "ideation" process so they find their own solutions—such as picking a tool for a video project or an app for a lesson. "You have this ability to have support whenever you want," Bretag says.

Class in the beanbag lounge

When teacher Heather Wolpert-Gawron ordered new furniture for her classroom at Jefferson Middle School in San Gabriel USD in Southern California, she gave her old items to another teacher. She started this school year without tables or chairs, a deviation from the routine that her sixth-graders appreciated—some students even found sitting on the floor comfortable.

Wolpert-Gawron calls her classroom the "Learning Lounge," because the new furniture, which arrived two months later, is more informal than traditional desks. Four coffee shop-like tables can be adjusted to different heights, allowing students to stand at counter height or to dangle legs while perched on bar stools. Other tables can be rearranged easily to suit different lessons or collaborative work.

Students can also sit on beanbags, lean against a friend or in video-game chairs, which are like rocking chairs. In total, the furniture cost around \$10,000. “The minute the kids have a Chromebook in their lap, they really want to huddle in different places,” she says. “It makes the room a place you want to be.”

Think color—and light

Yellow has a calming effect, making it a good color for elementary school reading time, says Michael Morrison, the chief technology officer at Laguna Beach USD, also in Southern California.

As Morrison and his team researched ways to renovate classrooms at different schools in the district, they found that different hues can stimulate certain emotions. Blue, for example, might inspire creativity—an ideal tone, he thought, for brainstorming and writing.

Unwilling to settle on a single shade, Morrison found a way to give teachers in three classrooms at the Top of the World Elementary School the ability to change wall colors with each lesson. A bank of colored lights, which teachers change with an iPad, now project the desired hue against white walls.

He also mounted 80-inch monitors on different walls to give every student an ideal view. The monitors are usually twice as bright as projectors that work best in dark rooms. This allows teachers to keep lights on and shades open during class.

While the lighting system and other “add-ons” were paid for with fundraisers, other aspects of the room redesigns were funded by a bond. In total, classroom designs at different schools ranged from \$35,000 to \$60,000 apiece. But Morrison says changes aren’t necessarily expensive: They can be as simple as swapping out florescent lights with LEDs that more closely mimic natural light.

Rethinking space

Alexandria Area High School in Minnesota now rotates teachers, rather than assigning them to specific rooms. The 1-to-1 laptop initiative has cut the need for storage in each classroom because books and materials are digital.

“It’s more like a college model,” says Superintendent Critz.

The school also provides office space where teachers can collaborate on planning. These offices are located near classrooms that constitute small learning communities in which teachers instruct groups of the same students.

The space makes informal conversations about lessons and students more natural. It has also encouraged more team teaching and interdisciplinary projects. “Instead of working individually in classrooms,” Critz says, teachers “want to collaborate and plan together.”

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