INSIGHTS, APPLICATIONS + SOLUTIONS

active learning spaces



every space is a learning space

Students prepare for a future no one can predict and for jobs that, in many cases, haven't been invented yet.





The future comes to the classroom every day. A new generation of tech savvy and connected students arrives with radically different experiences and expectations. Aware of the global economy and the competition it represents, students and their families are placing increasingly higher demands on education at all levels.

Technology is a force of its own. From interactive technologies and MOOCs to learning analytics, innovative technology offers educators new approaches for learning and instruction.

Educators are responding to these diverse forces with a refreshing openness. For the first time in decades, schools from elementary through postsecondary are making significant changes in how they teach. Educators are exploring what it means to be learner-centric, adopting active learning pedagogies and embracing technology that supports varied educational strategies.

Yet both students and educators still face the challenge of having to operate in facilities built for age-old ways of learning and teaching. Budgets are tight, so it's more important than ever to leverage every square foot of real estate.

Technology needs careful integration.

Students are digital natives, while instructors are usually digital adopters. Since technology must support the pedagogy used in the classroom, this divide often causes concerns for those who are untrained and uncomfortable developing instructional design protocols that truly engage learners.

Space impacts learning.

Interactive pedagogies require learning spaces where everyone can see and interact with content, instructors and other students, often at a moment's notice. Learning preferences vary; spaces must be flexible and fluid enough to support this diversity.

Every space can be a learning space if it is intentionally designed to support the pedagogy and technology in use, and it allows instructors to move among teams providing real-time feedback, assessment and direction for students in peer-to-peer learning.

> Carefully considering the requirements and interdependencies of pedagogy, technology and space helps establish new protocols for advanced learning environment solutions. Pedagogy is intentionally placed at the top, signifying an active educator is required to employ active learning.



The Active Learning Ecosystem

Inspired by ongoing Steelcase research and insights, active learning has become the foundation of our solutions developed specifically for students and educators. Learning happens anywhere and can be synchronous or asynchronous, formal or informal.

The change from passive to active learning often creates tensions that hinder adoption of new ways of learning and teaching. To ease these tensions, Steelcase advocates an active learning ecosystem that equally supports and incorporates pedagogy, technology and space. By looking at how individuals

Adoption of Active Learning

Students and teachers today suffer when outmoded learning spaces inadequately support the integration of the three key elements of a successful learning environment: pedagogy, technology and space. For too long, we have designed for what we know: classrooms designed in static rows and columns facing forward with little flexibility for the varied types of learning necessary today. Libraries designed to support books and quiet work, without the ability to support group learning and collaborative projects. In too many cases, these environments hinder learning rather than support.

Change is driven by pedagogy.

Teaching methods are evolving, with classes employing group projects and individual work along with lectures. And it's not just instructors teaching; peerto-peer learning is on the rise. From one class to the next, sometimes during the same class period, classrooms need the flexibility to adapt to different learning preferences.

learn and considering the requirements and interdependencies of these factors, new protocols for advanced learning environments are established.

The active learning ecosystem should be considered holistically-not only as part of the building master plan, but part of the *learning* master plan as well. This learning space strategy influences all spaces-from classrooms to libraries and cafés-and helps connect different stakeholders on their quest for higher level learning throughout the day.





The Rhythm of Learning

Effective planning for learning spaces requires a clear understanding that there is a rhythm of learning. Education is an ongoing, organic process that changes throughout a term, day and even class period and varies by learning place. The needs in the morning when classes begin are different from those in the evening.

During class time, classrooms must support quick transitions between learning modes, while also supporting digital and analog tools for students' active engagement. In the evening, learning places transition to support increased social study and group projects in informal learning spaces, as well as community events. Meanwhile, the middle and end of a term often drive increased individual work and greater need to consider the physical, cognitive and emotional needs of students during intense study periods. **A Palette of Place**

Intentionally designing learning spaces requires this rhythm of learning to be considered by offering a palette of place. Students and educators should be repeatedly shows students studying alone togethoffered a range of settings and the choice and control to select the best environment for their needs, These spaces are used when social connections are while considering building adjacencies, demands for important but individual study is required, for both visual and acoustic privacy, and collaboration and user behaviors for each type of space.

Students analyze information, develop points of view, create new content and share it, and eventually must come to own their knowledge. This deeper learning might require a stimulating environment at times, a guiet place at others, or an environment in-between these extremes. Access to varied learning spaces should accommodate a range of group sizes and within one floorplan or across all real estate supports the active learning process for all learners.

A palette of place also supports students' sense of energy of the place. ownership. Active learning involves a level of autonomy for individuals and groups to determine how **PUBLIC/TOGETHER Open group work with** and where they learn best, while still providing access

ing behaviors, a framework representing a range of spaces can be used. This framework demonstrates the need for private and public spaces be used in these spaces. that support individual work or work with others and can help guide building zoning, particularly When space, furniture and technology easily adapt as it relates to acoustic and visual privacy needs, user behaviors in various types of spaces and porting the rhythm of learning, campus planners other needs.

PRIVATE/ALONE Individual focused work with visual and acoustical accommodations. Despite an increase in collaborative work, individual study is still necessary for learning. These spaces, such as

study enclaves and small breakout rooms, provide privacy without distraction for maximum productivity. Cool color palettes may be used to support solitude.

PUBLIC/ALONE Individual work in the presence of others. Steelcase observational research er, such as at open tables in libraries and hallways. quick touchdowns or lengthy stays. Mid-range cool colors should be used to support concentration and focused work in the presence of others.

PRIVATE/TOGETHER Group work with visual and acoustical accommodations. These spaces support team collaboration and study when visual or acoustic privacy is important. These spaces learning modes, use vertical planes to display information, and allow users to easily share digital content. Warm hues should be used to reflect the

peers or faculty and staff. These spaces support to instructors to help students learn most effectively. impromptu brainstorming and sharing of information among group members while allowing opportuni-To understand and design for these varying learn- ties for mentoring and learning among faculty and students. Spaces should support different group sizes and postures. Mid-range warm hues should

> to pedagogies and learning preferences while supand designers can make a significant contribution to the educational process.

ALONE



Based on our research, this framework helps explain how space can support the rhythm of learning across a floor, building and campus.

secondary education. We observe educators at work social sciences and ergonomics.

		SYNTHESIZE
conduct secondary research	conduct primary research	share research findings
review market	ask, observe and engage	discover insights create design
uncover trends and relationships	shadow, conduct contextual interviews and engage in participatory design activities	principles

For years, Steelcase has studied education with and test design principles, product ideas and applicaa unique, human-centered design research pro- tions with the goal of improving student success, while cess. The approach is both broad and deep, spanning immersing ourselves in the relevant research of others schools of all types and levels from public to private, in such fields as learning research, cognitive neurocommunity colleges and universities, to primary and science, environmental psychology, behavioral and

REALIZE

visualize concepts hts package findings

circulate ideas

build full-scale

models run simulations collect data

MEASURE

conduct experiments provide feedback iterate and test



learning spaces

classroom

WHAT WE OBSERVED

The majority of classrooms in use today were built for traditional, "stand-and-deliver, sit-and-listen" pedagogies in a passive learning setting.

Inflexible layouts and furniture with limited mobility hamper interaction among students, instructors and content; in fact, the environment is the barrier.

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.

Many schools are reconsidering how pedagogy, technology and space can be better integrated for a greater impact on teaching and learning.

WHAT WE HEARD

"We replaced typical cookbook experiments with guided inquiry exercises that encourage students to think and work as a group rather than follow recipes with predetermined results. These exercises develop skills that better prepare them for future work and give them the tools to help them retain knowledge long after the semester ends."

Professor

"I bring a lot of stuff to class. And I use a lot of it – it's not the old days, when we would just take notes in a notebook; it's a multimedia and social experience. There aren't a lot of classrooms that work for me."

Student

An Active. **Flexible Ecosystem**

Educational experiences are changing, influenced not only by new pedagogies and technologies, but also new understandings of brain science and the idea that students learn best with access to a range of tools.¹

Research suggests a multi-sensory approach to teaching and learning increases engagement, promotes deeper participation, maximizes student achievement and elevates the idea that learning is fun.² Steelcase research and other investigations suggest that the engagement and interaction of active learning provides a more effective way to learn than passive learning.³ However, as institutions adopt constructivist learning approaches, they often find themselves limited by density challenges and classroom environments designed for lecture-based instruction.

To fully capitalize on the benefits of active learning, physical space must support and enhance the pedagogies employed in the classroom. Static furniture designed for one-way transmission of information simply cannot support active learning.

2 Baines, L. (2008). A teacher's guide to multi-sensory learning: improving literacy by engaging the senses. Alexandria, VA: Association for Supervision and Curriculum Development

3 NSSE updated for 2013. Promoting Student Learning and Institutional Improvement: Lessons from NSSE at 13. Annual Results 2012. Retrieved March 9, 2013, from http://nsse.iub.edu/NSSE 2012 Results/pdf/NSSE 2012 Annual Results.pdf

Active learning assumes student involvement in content sharing and building new knowledge, leading to greater student engagement, comprehension and ownership of the information. As learning becomes more interactive, classrooms must support multiple types of collaboration, including informative, evaluative and generative, as well as peer-to-peer learning and many other emerging modes.

These modes of learning all depend on equal access to analog and digital information, and the ability for every user, no matter where they're located, to join in the collaborative process.

Collaborative work is essential to active learning, suggesting that classroom spaces must be varied and flexible. One-size-fits-all classrooms neglect the modern day needs of educators and students. Different subjects and teaching methods require different mixes of furniture, technology and space. Just as there is a variety of ways in which we learn, there must also be a variety of spaces in which learning occurs.

When focused on active learning, institutions should consider how flexibility and variety work with pedagogy, technology and space to support how learning happens in active learning classrooms.

¹ Wolfe, P. (2010), Brain matters: Translating research into classroom practice (2nd edition), Virginia; Association for Supervision and Curriculum Development (ASCD).







Movement is key to active learning. When students can move about easily, they are more interactive, collaborative, comfortable and engaged in class. The Verb[™] classroom collection reinvents the table-based classroom, allowing easy movement between lecture-based and team-based modes and providing the tools needed for collaboration and group engagement.

Tips For New Classrooms

These tips for planning and designing new classroom environments have been developed with the Steelcase Human-Centered Design Research Process, conducted at schools and colleges across the U.S. and Canada. They are intended to provide some guiding tenets to those who plan education spaces, assisting in the design of more interactive and flexible learning spaces that give permission to act differently.

TECHNOLOGY

PEDAGOGY

- 1 Design to support fluid transitions among multiple teaching modes: lecture, team project, discussion, etc.
- **2** Design for peer-to-peer learning.
- **3** Allow freedom of movement for the instructor, enabling frequent interactions and ongoing assessment.
- **4** Support the implementation of professional development to increase adoption of new teaching strategies.
- **5** Set expectations for what an active learning environment looks like – learning is messy, things move.
- 6 Expose students to how these environments enable, support and allow them to take ownership of their learning.
- 7 Support individual learning.
- 7 Support learning styles with both analog and digital means to co-create.



1 Design for sharing, leveraging both vertical and horizontal surfaces for display; use projection and interactive surfaces.

- 2 Integrate, use and allow access to BYOD and instructional technology tools and devices.
- **3** Allow for displayed information to be persistent over time.
- 4 Ensure thoughtful planning occurs when selecting technology so the tools are used as intended to enhance outcomes.
- 5 Beintentional about what technologies should be used and how to support pedagogical strategies.
- 6 Incorporate tools that support synchronous and asynchronous learning and collaboration.

SPACE

- **1** Design for visual and physical access, giving every student the best seat in the house and allowing the instructor and student access to each other.
- 2 Facilitate social learning by designing spaces where students can easily connect and collaborate.
- **3** Design to support quick reconfiguration among multiple modes: from lecture to project work to discussion, test taking and back again.
- 4 Include wall protection for table and chair movement.
- **5** Support a range of postures to enhance wellbeing.
- 6 Integrate the design to support and reflect the educational goals and mission of the institution.

Application Ideas: Classrooms

These are classrooms that rethink "the box" and move away from the traditional setting of rows of fixed tablet chairs and a lectern. Here you will find learning spaces that can easily morph from lecture mode to teamwork to group presentation, discussion and back again. Every seat is the best seat, with access to content, other students and instructors who are available to everyone. Technology is integrated, providing democratic access for all. These are classrooms that engage and inspire by putting control of the learning space in the hands of students and instructors.



Classroom spaces should be designed with the principles of private/together spaces.





Node[®] classroom

This classroom features Node on casters with personal worksurfaces, portable Huddleboards and a height-adjustable instructor table for maximum flexibility and comfort.



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Real estate is precious. Node can handle density as well as any seating solution, with the added advantages of comfort, flexibility and mobility.



Node's swivel seat and mobile casters provide open sight lines to the instructor and other students.



Node enables fluid, quick transitions between teaching modes.

...141

....141

FEATURED PRODUCTS

Node seating..... .. 133 Huddleboard..... Airtouch height-adjustable table...... 140 ēno flex.....

Verb classroom

Verb is an integrated system of classroom furniture designed to support a variety of learning and teaching styles on demand. The freedom to move and engage means wall protection is required in all active learning settings.



Seating that swivels and offers height adjustability supports all user types.





As a system, Verb supports multiple pedagogies and learning styles, allowing for fluid transitions between modes.

Chevron design allows eye contact to be maintained, even in lecture mode.

FEATURED PRODUCTS

Node seating..... Pocket Universal table Verb instructor station Verb tables.....

The table's chevron shape supports the individual's intimate zone, separating "my" space from "your" space.





Team modes support longer duration projects.

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ēno interactive whiteboard	.141
/erb easel	142
/erb wall track and hooks	143
/erb whiteboard	143
Exponents mobile cart	

LearnLab[™]

LearnLab integrates furniture, technology and worktools to support a variety of teaching methods and learning preferences. Multiple stages make it easy for both students and instructors to share content, and a unique "X" configuration gives everyone clear sightlines to digital and analog content. LearnLab reclaims and redistributes the classroom real estate, providing democratic access for all.



media:scape[®] LearnLab

Combining innovative LearnLab design with unique media:scape technology creates the opportunity for three distinct modes of sharing digital content: small team co-creation, group sharing and lecture.



FEATURED PRODUCTS

Node seating 133	ēno interactive whiteboard141
Universal tables 140	Edge Series whiteboard 142
Pocket 140	Low profile floor 143
Huddleboard141	Exponents mobile cart

FEATURED PRODUCTS

nedia:scape141
no interactive whiteboard141
dge Series whiteboard 142
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n d

Node mid-back classroom

Node mid-back supports flexibility and active learning in the classroom, even in dense environments.





A mix of solutions provides students choice and control when working in small groups.



Flexible furniture supports easy transitions from lecture to small group activities

FEATURED PRODUCTS

Node seating	133	ēno flex	.141
Verb tables	140	Verb easel	142
Verb instructor station	140	Verb whiteboards	143

Flipped classroom

enhance self-paced learning.







Groups allow the instructor to move fluidly among teams, offering more personalized instruction.

The natural arch in rows increases sight lines between students.

FEATURED PRODUCTS

Node seating...... Campfire seating ... Paper table..... Groupwork table ... Verb instructor stat

24

Flipped learning means more collaboration and hands-on learning in the classroom. It provides a range of settings to



	Verb tables
	ēno flex141
	Verb easel
	Verb whiteboards143
ion140	Alight stool

Arena host classroom

The arena host classroom supports both virtual and onsite participants in lecture, collaboration, presentation and other learning modes.



.....141 ScapeSeries table

..... 143

Large Verb classroom

A large, integrated multi-modal Verb classroom allows students to work together and build community within a large class. Node chairs that can swivel let students easily see others and content throughout the space.







Teams of six can easily be configured for group activities while swivel seats allow students to turn to see content and others.

Verb chevron table enhances sightlines even in lecture mode.

FEATURED PRODUCTS

Node seating...... Verb tables..... Verb instructor stati Huddleboards...... ēno flex.....

Verb whiteboards.....

media:scape

Node chairs allow students to connect with others and content throughout the space while storing personal belongings in the tripod base.

The subtle arch created by the

	Verb easel
	Verb whiteboards143
ion140	Verb wall track and hooks 143
141	Exponents mobile cart

Double LearnLab

The Double LearnLab is designed to activate all aspects of the classroom and learning experiences while supporting large class enrollment.



All 64 students have equal access to content, the instructor and each other.

FEATURED PRODUCTS

Node seating 133	ēno flex141
Verb tables	Verb easel
Verb instructor station 140	Verb whiteboards143
Universal table 140	Verb wall track and hooks 143
	Edge Series whiteboards

Blended classroom

This classroom allows unrivaled opportunities for movement and both formal and informal interactions. Multiple technologies support diverse learning preferences and instructional methods. Multiple instructors can engage with students in the space.





Choice and control are prevalent for students and instructors alike, allowing them to choose the best space for the activity at hand.

FEATURED PRODUCTS

Бибу
Cobi
Node seating
Campfire
Bivi
Freestand table

Layout supports sightlines to multiple locations within the classroom. Lounge seating with privacy screens offer locations for rejuvenation and solace.

132	Verb instructor station140
132	Universal storage142
133	ēno interactive whiteboard . 141
135	Groupwork mobile
138	whiteboard141
139	Privacy wall 143

Alight ottoman Currency workwall Elective Elements storage FrameOne Scoop

Classroom in the Round

The Classroom in the Round makes large classrooms feel more intimate and enhances the sense of community. The instructor is free to move throughout the class to further engage students.





Flexible furniture enables quick transitions to multiple modes, supporting new ways of teaching and learning.

FEATURED PRODUCTS



Even in large lectures, the front and back of the room are removed for a more democratic, accessible classroom.

Node seating133	Verb easels
Verb tables140	Edge Series whiteboard 142
Pocket 140	Verb whiteboards143

Gallery classroom

class environment.







Multiple stages in this learning environment support a wide range of classroom activities.

Flexibility is key, even in a large classroom.

FEATURED PRODUCTS

Node seating...... Verb instructor stat

This large, integrated studio-inspired classroom allows students to work together and build community within a large

Swivel seating lets students easily see others and the content throughout the space at any time.



	media:scape141
tion141	Huddleboard141

Project studio classroom

This classroom supports differentiated instruction through modal switches from whole class to small group instruction. Students can be grouped to accommodate similar or mixed learning styles and interests. This classroom can also be used for multiple smaller classes at one time or outside class time for student-directed work, maximizing use of valuable space.





0000 0000

FEATURED PRODUCTS

Move seating.. Campfire Lounge 135 Huddleboard SW_1

Node seating.

Together bench.. 133 ..137 . 133 Campfire Paper Table...... 138

Alight stool Campfire personal table



32

Customer Story Conducted at The University of Michigan, Ann Arbor, MI

structors and students, Steelcase created Node, a chair designed to support the many modes of learn-groups, often at a moment's notice from their instructor. ing and teaching. Every aspect of Node's design was focused on creating a chair for active learning in a fu- Researchers also observed instructors standing in the ture-focused classroom.

Node's impact on the classroom experience was evaluated in pre- and post-installation studies at the University of Michigan. The two-month study was con- to the next. ducted in a general-use classroom used for a variety of classes and by various instructors and students. Students and faculty praised the Node chair for its comfort, storage and ease of movement, while faculty reported significant improvement in their ability to reach and engage students in an active learning environment.

It was Node's mobility and how it affects the classroom's performance that made most instructors stand up and take notice. "The biggest thing was the mobility," said Rachel Crisco, a French language and culture instructor at U of M. "I do a lot of group work, and I like to have them move around to work with different classmates. I also like the students to face each other for conversation, and the swiveling ability makes that easy to do," said Crisco.

Where instructors were once isolated at the front, in a Node classroom they moved easily and frequently among their students. And instead of being locked Inspired by our research findings and the input of in- into the existing static configuration of their desks, students could now swivel or scoot to work in pairs or

> center of a circle of desks for instruction sessions and then moving to become "guides on the side" during discussion and project work, as students smoothly reconfigured from one segment of class activity

> > Research showed that the Node chair encouraged group activity and helped students focus better on course material.





88%	armrest provides enough support
96%	easy to get in and out
97 %	like the look
99 %	easy to use laptop, easy to adjust worksurface, enough horizontal workspace
100%	more comfortable backrest, provides enough support

89 %	improves concentration and focus
93%	improves group work
95 %	improves overall classroom experience
99%	makes it easy to move into different activities

GO DEEPER

Watch the University of Michigan case study on YouTube.com/SteelcaseTV

Customer Story Lake Forest Academy, Lake Forest, IL

Classrooms can be owned or shared, small or spacious, new or old. One thing they should always be is flexible.

When Lake Forest Academy, a college preparatory high school outside of Chicago, renovates an old classroom or builds a new one, they avoid building classrooms for a single curricular model; flexibility is paramount.

"There are differences between disciplines, but as much as possible we want to be able to teach any subject in any classroom," says William Dolbee, associate head of school and history instructor.

In renovating their 60s-era classroom building, the Corbin Academic Center, the school added large windows, installed classroom glass walls and doors to stream light to the building interior, and brought in mobile, adaptable classroom furniture. Heavy wood- "There are also casual study spaces where students en tables and chairs were replaced by Verb tables and Node and Move seating to provide the mobility teachers and students need for active, collaborative learning. "The idea that students can move around easily to see material anywhere in the room is really important," says architect Peter Witmer, principal of "These spaces get a lot of use. Students gravitate to Witmer & Associates.



"Being able to easily reconfigure the classroom has been a real positive. The chairs are in different colors so the instructor can simply say, 'Okay, get in groups by color,' and just like that the classroom is changed." Since learning doesn't stop at the classroom door, the academy added study spaces adjacent to the renovated classrooms. Node chairs circling round tables and rectangular Campfire Big Tables with Scoop stools are regularly used for classroom breakouts and during free periods.

can take a more relaxed posture on a Campfire Big Lounge or ottoman, take out their computer or tablet and work on projects with others, or study by themselves," says Witmer.

different areas depending on who they need to work with, where their next class is, or if it's close to the department office when they need help with a particular subject," says Dolbee.

The academy's new Science Center was designed for active learning, too. Since science curricula are increasingly integrated, the school planned classrooms so any subject and pedagogy would be well supported. In each of seven classroom/lab combinations, one side of each room has lab bench islands for laboratory work, and the other side has Verb tables with personal whiteboards and Move chairs on casters.

"This gives teachers great flexibility. They can plan a les-Teachers are no longer limited by space to a traditionson that moves from discussion right into a hands-on al lecture style; the "sage on the stage" has given way lab. But classes don't always go as planned. If stuto the more effective "guide on the side." Instructors dents don't understand a concept, for example, the use the most appropriate pedagogy to better engage teacher can quickly demonstrate it in the lab area. students, and move around the room to advise and It saves time, it holds students' attention, and it's a assist as needed. much more effective way to teach," says Dolbee. Like the renovated classrooms in the Corbin Academic "One of the key ideas we took from Steelcase is that Center, the Science Center's classroom/lab combithere's no 'front' to the classroom anymore. Whether nations are ideal for active learning. Students easily it's a person speaking at the whiteboard, someone work in pairs, teams or individually, in practically unmaking a presentation, using projected, interactive limited class configurations. content-you want information to flow in all directions," says Dolbee. "And when the students are on mobile chairs and you can shift from one part of the room to another, or one board to another, it's amazing what a difference that makes."



Students and faculty evaluated renovated classrooms at Lake **Forest Academy:**

STUDENTS

85 %	an effective teaching and learning environment
96%	Node chair supports group work
73%	Node chair improves the classroom experience
96% 73%	Node chair supports group work Node chair improves the classroom experience

FACULTY

69 %	an effective teaching and learning environment
100%	Node chair is easier to move than previous furniture
73%	Campfire Big Table and Scoop stools are effective in the hallway

media lab

WHAT WE OBSERVED

Gen Y and millennials love technology. And while the trend of more laptops on campus is real, only about one-third of students use laptops in the classroom. Why? Too little desk space, no power access, too much to carry around and instructors' restrictions on use in class.

Computer labs are still a draw because students can access expensive, specialized software and printing is often at reduced costs or free. These labs are morphing into media labs where sophisticated software is necessary. They must accommodate individual, dyadic and team work.

In addition to new media labs, many schools are creating small computer pods and placing them in media labs, libraries and other buildings throughout the campus.

Spaces for Technology + Users

Ever since desktop computers first arrived on campuses in the 1980s, schools and colleges have built dedicated computer spaces for students. Today, not only do students at every level have access to laptops, tablets and smart phones, they are using them in all learning spaces, including at home. The proliferation of technology and blended learning is changing the expectations of learning in the media lab.

Digital Media Labs

Students are drawn to digital media labs for several a computer an reasons. College computers have program-specific software that's often too expensive for students does little for the to buy for their own computers, and media labs provide students access to scanners, multimedia on their screens and little if any workstations, and other technology, Schools also offer quality printing provided by school equipment other materials.

Other reasons to go to the lab? They're convenient to classrooms and the library, students need to access heavy duty computing power (e.g., to run engineering rendering software), project files are stored on the school database (e.g., large video files, art projects, etc.), and students don't always carry their laptops around because they're too heavy or cumbersome.

With the rise in virtual desktops and 1:1 initiatives, some schools are finding less need for the traditional computer lab. In its place are collaborative areas and zones for self-directed learning. Institutions can support this higher-level learning by providing labs that are planned as true learning spaces, not simply hardware locations.

Media Lab as Classroom

Students and instructors are participating in more online forums, viewing more online lessons and even creating their own digital content, resulting in more efficient access to education than ever. Yet all students need and seek face time with instructors and other students; learning depends on it. **Steelcase's recent primary and secondary research suggests blended learning supports richer face-to-face interactions and higher-level cognitive thinking.**

As blended learning becomes the new standard, instructors are increasingly using technology to offer more personalized, self-directed experiences for students. While students learn online in the lab, the instructor assumes a more dynamic role of the guide-on-the-side, helping students with problem solving, communication and collaboration.

Media labs have typically been enclosed, with rows of small side-by-side desks that can accommodate a computer and little else. This approach simplifies furniture specification, layout, wiring and cabling but does little for the students who use the labs. They have to work in close quarters with little privacy for what's on their screens (a commonly articulated annoyance) and little if any worksurface for notebooks, books and other materials.

To make these spaces more effective, plan for varied learning modes, such as individual focus work, peerto-peer learning, group work and guide-on-the-side instruction. Design should also consider how users can be more active during computer work to improve their comfort and overall wellbeing.

Today's media labs should be designed to allow educators to leverage technology in entirely new ways and the flexibility to support the ongoing evolution of learning.

GO DEEPER

For more on Steelcase's research and insights on the impact of technology on learning spaces, see the white paper, Technology-Empowered Learning: Six Spatial Insights, available on SteelcaseEducation.com





The Node chair with five-star base straddles table bases and rolls easily under and around a variety of tables and table heights, making it easy to pair with existing worksurfaces. The five-star chair is height-adjustable and utilizes the Node seat shell, which was designed to provide comfort without upholstery for durability and ease of cleaning.

Tips for Media Labs

Media labs are not just places to warehouse computer equipment, they're workplaces for students, faculty and staff and should be furnished appropriately. Below are tips to consider when designing these spaces to offer flexibility and comfort.

PEDAGOGY

- 1 Support individual, dyadic and team work in media labs, as well as spaces for instructor demonstration.
- **2** Allow students to temporarily own the space by accommodating their belongings and providing a range of tools.
- **3** Provide multiple power outlets at worksurface height for portable technology - phones, laptops, etc. - to prevent students from unplugging other equipment to access power.

TECHNOLOGY

population.



SPACE

- 1 In media labs, provide a means for users to keep their computer screens private (e.g. privacy screens, monitor arms).
- 2 Monitor arms free up worksurface space and allow adjustment of computer screens for a diverse
- 1 Basics in media labs include adequate legroom, comfortable seating for long work sessions and worksurfaces that hold more than

just a keyboard and monitor.

- 2 Use benching workspaces in media labs instead of freestanding desks to maximize real estate, route wires and cables to expand or contract simply and allow students the choice to connect with others or to work individually.
- **3** Students work with technology, printed materials and other students on group projects; plan pods with enough room for small groups and sufficient worksurface for a wide variety of student materials and personal items.
- 4 Screens between adjacent pods provide privacy and define territory.
- 5 Computer pods are effective when located adjacent to other work areas such as library project workspaces and lounge/collaborative areas.
- 6 Provide a range of choices for seated and standing postures.

Media labs

Designed for both individual and collaborative computer work, media labs let users expand the use of their space as necessary. Students can choose an individual work area or a space for team project work, or they can move easily between the two areas as their work requires. Educators can teach in these spaces and have easy access for assessment.



C

A range of settings give students choice and control over where and how they learn.

FEATURED PRODUCTS

Cachet chair..... Cachet stool.... Await seating Circa seating.....

Application Ideas: Media Labs

These space ideas are not simply for media labs but also for computer user spaces. Computer pods can be located wherever student traffic dictates, and they prove the concept that every space can be a learning space. Media labs/computer common spaces provide support for a variety of work modes, from waiting and reading to small discussions and, of course, dedicated work sessions with computer equipment. Answer system solution creates an independent computer station, offering privacy and a wraparound worksurface for individual student work.

When computer stations are connected, students have the freedom to choose whether they want to work alone or collaborate on a project.

Post and Beam lounge space accommodates relaxed study space and also serves as a touchdown space while waiting.

PUBLIC/ALONE PUBLIC/TOGETHER



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						134
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-	Airtouch height-adjustable
ŀ	table140
ŀ	Verb instructor station140
5	ēno flex141

Technology classroom

This technology-rich classroom provides the software and equipment needed for coursework. The tiered seating supports dynamic and transparent interaction between the host classroom and virtual participants, while enhancing overall sightlines.



Media lab/computer commons

A space-efficient plan for a media lab and/or computer commons supports a variety of work modes and postures: sitting, standing, lounging and even walking while working; software is the key here for students, along with printing services.

The lounge area has comfortable



FEATURED PRODUCTS

Camptire
Hosu
i2i
Regard



PUBLIC/TOGETHER PRIVATE/TOGETHER



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Walkstation	140
Victor 2	144
Enea stools	
SOTO II	

FrameOne Post and Beam Duo storage Currency

Customer Story Flagler County Public Schools, FL

Technology brings them in, then the classrooms bring them back.

facilities managers from around the country routinely visit Flagler County Public Schools in northern Florida because of their reputation as innovators in using technology in education, and as one of a global community of educational institutions advising Apple Computer on integrating technology into learning en- oped the Hive." vironments. However, what often surprises visitors isn't just Flagler's impressive technology, but how well the school integrates technology, furniture and space to create innovative, active learning classrooms. As a paperless school, each classroom is a modern day media lab designed to optimize the use of technolo- tation. Each student has an Apple iPad and a Node gy in the learning environment.

"The environment is the last place people look when they want to enhance student development, but it should be the first," says Joey DiPuma, innovation coordinator for the school district. "Every school has and do the same. a computer lab and they all look alike: a room with kids sitting at computers. We wanted to create a "Node lets us rapidly and precisely break out into small more effective active learning environment." Flagler's first atypical computer lab was dubbed Evolve. "It was our prototype, our first active learning space," says DiPuma. The room includes Akira mobile tables and Domino stacking chairs, Airtouch tables, plus Huddleboards and eno interactive whiteboards for displaying content.

"Evolve worked pretty well. Different teachers taught in the room, we did teacher development in there, and people started getting used to moving things around. Other schools started duplicating the space," says Joe Jakubowski, elementary school teacher. Flagler timed the opening of their next classroom space to Steelcase's introduction of Node student seating.

"When Node became available, we opened Sandbox, our next generation of active learning classroom with flat screens and more mobile furniture." As teachers and students used the Evolve and Sandbox classrooms, the ad hoc development team behind these new spaces – DiPuma, director of technology, Ryan Deising, and fifth grade teachers Jakubowski and Brock O'Shell - continually solicited feedback and Administrators, teachers, technology directors and suggestions. "Who else would know better what they need in the classroom?" says Deising. "We wanted to create something that everyone can use. So we tested different technology and furniture, filmed classes, and tracked the performance of everything in Evolve and Sandbox. Based on those learnings, we devel-

> The Hive consists of two 24' X 24' classrooms, connected by an office, with one room for large group instruction and the other for breakouts. Flat screen monitors and audio systems boost content presenchair. The Hive allows two instructors to teach at the same time. "We don't have static teacher stations," says O'Shell, "so while I'm teaching reading, Joe can go around the classroom and help individual students, and while he teaches math I can go around

> groups or large groups. The kids can do it guickly and quietly. That's why we picked Node."



Despite the school's obvious technology advantag-"Our message to educators is that no matter what es, DiPuma emphasizes that the Hive is far more than school you're in, you can create the same active technology. "It's a different culture, a different way of learning environment in your school. Identify teachteaching. It's not just the kids having iPads, or putting ers who are willing to try new things. Learn with the projectors or monitors in the room. It's the furniture, kids. Break down the silos between departments. the design of the space, all of those things together." Don't be afraid to change things up. You don't have The teachers see huge benefits to how they have to know everything about the software and the apps, combined technology, furniture and space to furbecause the kids learn just as fast or faster than the ther active learning. "We take small assessments all teacher does. You just have to believe in your staff the time and we're seeing steady growth. This is not and your students," says Jakubowski. a hand-picked group of students. We have students with a different native language, a variety of abilities. "Then ask the question that we ask ourselves all the The kids really like being in this classroom. They can't time: what are we going to do next?" wait to get in here, and that's really changed learning here," says Jakubowski.



WHAT WE OBSERVED

Libraries are becoming the academic heart of the campus, supporting social connections, collaborative needs and team projects, along with event areas for campus and community activities.

The central role of computer hardware and software has resulted in a demand for more library computer labs.

Anywhere/anytime information access has lessened the need to reference books, so book stacks are being reduced and moved to less prominent locations.

Librarians' roles are changing; they're instructors, technology advisors, research assistants and collaborators with students and faculty.

WHAT WE HEARD

"We have to look at our information in the library and rethink the ways we provide it to people." Librarian

"It's really hard to focus when you're in an enormous room that has noise going all over the place and you're trying to read things on a screen. Our library has a 'stateof-the-art computer area,' but the entire floor is open. Everyone who's walking to the other end of the library has to come through."

Student



The Library Transforms to Learning Commons

The library is the academic heart of a school, but just as education is changing, so too is the library. With information available online virtually any time, housing countless books has become of secondary importance.

Today's library should be a broader and deeper resource than ever, a place where traditional and new knowledge resources, instructors and students converge in an ongoing process of learning, teaching and discovery. It doesn't require more real estate, but simply rethinking how library space is used.

To better understand the trends, Steelcase Education initiated a major study of libraries at 13 public and private colleges and universities across the U.S. The research revealed that the library is becoming a key location outside the classroom where constructivist pedagogy plays out as students learn to analyze information and create new knowledge, often working in groups. This change represents a transformation from book storage site to center of interactive learning.

The library's dramatic shift to a multi-dimensional space hasn't been easy. For example, in recent decades, growing computer use led libraries to install computer stations, but their haphazard application often placed people in busy corridors with no privacy. Group work areas were often placed without intention next to individual study areas, leaving quiet-seeking students frustrated while student teams searched, often fruitlessly, for collaborative spaces and tools to support group projects.



Intentional design, adjacency planning and understanding intended behaviors through research result in a better approach. There is a rhythm to an individual's learning process and effective learning spaces support this rhythm of learning. Just as the classroom needs to support varied learning and teaching styles across different class periods and courses, library space must be equally adaptable to the changing needs of students and instructors. A reduced emphasis on housing books frees up real estate for individual and group learning. For example, Steelcase research shows that college students tend to work in groups more in the evenings (outside class and work time) and individually or with one other person during mornings and afternoons. Spaces for solo tasks work best early in the day and must be flexible later on for other needs.

Primary and secondary students are increasingly working together in constructivist pedagogies, too. The library remains a key resource for learning how to find and use information efficiently, but it's also a place for peer-to-peer mentoring, small group projects and access to hardware and software.

A palette of place supports the demands placed on a library today. A variety of settings thoughtfully located throughout the library allows students and instructors to choose the space appropriate to different kinds of learning, whether that's a quiet place for individual study, a space to work on a group project or other location they choose simply to match their need that day for a particular level of quiet or stimulation. Having the choice, and being able to choose, empowers students and teachers and makes them more productive.

In the past, the library was a place where printed materials were used to instill a love of reading and teach research skills. Now both print and digital are used, while students take a more active role in learning. Both instructors and students look to the library as an essential resource to support the changes in education. This transformation drives the need for new, multi-use library spaces, and multiplies the ways the library supports teaching and learning.





media:scape merges furniture and technology to help students collaborate, co-create and share ideas more effectively. media:scape boosts collaboration across the table or around the globe - by transforming classrooms, libraries or social spaces, connecting students and allowing them to share information seamlessly.

Tips for a New Library Ecosystem

Most existing libraries were designed and built for find- content-creation tools. Each quadrant represents a set transcend that limited role, they must evolve as students' needs expand. As self-directed learning spaces, Whether in a new space or a renovation, adjacencies work, private study space, computing equipment and acoustical privacy requires careful consideration.

PRIVATE/ALONE

Individual spaces should support focused work but also the Library classrooms should accommodate active learning, appropriate scale for an individual, their wellbeing and the security and accommodation of work tools.

- **1** Provide enclosed space for visual privacy.
- 2 Support the need for extreme focus and concentration by blocking all distractions.
- 3 Allow temporary ownership of space.
- 4 Support a range of short- and long-term ownership of space and privacy with assigned, secure spaces.

PUBLIC/ALONE

Individuals want to work in the company of others to stay socially connected while working alone in various open settings.

- 1 Support the need for co-existence of focused work and social interactions; allow settings to switch from individual to dyads and triads.
- 2 Offer highly flexible and self-customizable furnishings and tools.
- 3 Support postural changes for short- and long-term use.
- 4 Enable guick, targeted access to computers, online services, printers, etc.
- **5** Support perched and standing short-term postures.
- 6 Provide access to dedicated computer workstations, specialized technologies and software.

ing books and checking them out. As today's libraries of behaviors that should be intentionally planned for.

four zones emerge, each supporting different types are crucial, including planning for technology in pracof behavior and activities. Across these zones, new tically every setting from team, collaborative spaces library spaces must support collaboration and group to social areas to individual study spaces. Visual and

PRIVATE/TOGETHER

computing and distance learning with fluid transitions. Team spaces should support multiple meeting modes and student project teams.

- 1 Support a fluid switch between activities.
- 2 Provide a range of blended learning and teaching environments, including online, webinars, etc.
- **3** Support multiple meeting modes inform, evaluate and co-create - for small to large groups.
- 4 Provide tools for visual display, collaborative technology, information and acoustical privacy.
- **5** Provide highly flexible, customizable furniture to meet collaborative, privacy and ergonomic needs.

PUBLIC/TOGETHER

Students often do group work in open areas to stay connected to others, requiring flexibility to meet their changing needs. Reference areas should capitalize on librarians' expertise in mentoring and learning. The increased use of technology requires just-in-time technical support. The increased use for events requires multi-purpose, adaptable gathering places.

- 1 Accommodate impromptu teaching and collaborative activities.
- **2** Remove barriers between students and staff.
- **3** Provide accessible dedicated spaces for technical services.
- 4 Create multi-purpose, adaptable spaces to host large functions.

Consider the entire library floor plan when retrofitting any settings, designing with adjacencies in mind. When planning, be sure to support each quadrant independently and holistically within the entire floor space, acknowledging acoustic and/or visual privacy needs.

PRIVATE/ALONE

Individually dedicated spaces support a range of focus and concentration and should consider appropriate human scale for an individual and their wellbeing. Plan for short- and longterm security of personal items and the accommodation of new worktools.

PUBLIC/ALONE

Individuals want to study in the company of others to stay socially connected while working alone in a variety of open settings. Support the need for co-existing focused work and social interactions, allowing settings to switch from individual to dyads and triads. Offer highly flexible and self-customizable furnishings and tools while supporting postural changes for short- and long-term use.

PUBLIC/TOGETHER

Support the demand for large, scheduled functions with multipurpose, highly adaptable gathering places. Accommodate impromptu teaching and collaborative activities by removing barriers between students and staff. Recognize the increased need for just-in-time technical support for questions, support and maintenance.

PRIVATE/TOGETHER

Technology-rich library classrooms should accommodate multiple uses such as active learning, computing and distance learning with fluid transitions. Support multiple meeting modes – inform, evaluate and co-create – for small to large groups.



52

Study cave

Private study is still very prevalent in the library. Allow students to block distractions and settle in for long periods of study with panels and plenty of worksurface space.

Learning pod

change and temporary storage for belongings.



Spaces for individual work should provide options for short- and long-term stays. Support these with options for posture

.. 132 Elective Elements

Learning bench

Even when focused work is required, students often prefer to study in the presence of others.

Nest

to stay connected with others.







FEATURED PRODUCTS

cobi SOTO LED task light FrameOne

.. 132

FEATURED PRODUCTS

Sidewalk mobile...... Groupwork

Students seek flexible spaces to support individual work when they need to focus as well as social interactions

Portable whiteboards allow spaces



 Answer
 Elective Elements

Mentor pod

Relationships between library staff and students are evolving into mentorship and guidance. Remove barriers so these connections can happen anywhere.

Multi-use workspace allows staff Low screens help remove to easily switch from individual barriers between staff work to work with students. and students while still providing visual privacy. Stool-height counters allow staff and students to share and discuss information.

Event forum

Multi-purpose, adaptable spaces are needed to serve a wide variety of functions that may depend on the day, week or term. These spaces allow for a rhythm of learning to happen all within one space.





.. 134

FEATURED PRODUCTS

Enea stools c:scape

Think...

FEATURED PRODUCTS

CO	bi seating	
Nc	de seating	
i2i		
Gr	oupwork	



 Verb tables	140
 media:scape	.141
 Verb easels	142
 Verb whiteboards	143

Immersive work studio

Groups often meet to complete assignments in libraries. Provide them with privacy from others and tools to collaborate.

Campsite

Students often need ample space to spread out and setting to collaborate, co-create and discuss.

Mounted display of digital





FEATURED PRODUCTS

cobi Bivi....

Students often need ample space to spread out and work together. Provide them with choice and control in an inviting

Ample space allows students to spread out in their own space while still able to easily collaborate.

PRIVATE/TOGETHER



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Drive Thru

The drive thru supports short-term walk-up tasks such as library database searches or printing.



Campsite

out materials.



Monitor can share campus

FEATURED PRODUCTS

This multi-purpose space supports social breaks, collaborative group work and individual study with the ability to spread

PUBLIC/ALONE PUBLIC/TOGETHER



Regard 137

Team Studio

The Team Studio enhances connections between local and remote instructors and students. The sense of connectivity experienced by participants allows for an engaged atmosphere that encourages discovery.





Customer Story Grand Valley State University Allendale, MI

"We wanted this to be a very different place, to feel different and look different, so that students could act differently."

Different indeed. As Lee VanOrsdel, Dean of Grand Valley State University (GVSU) libraries suggests, the new Mary Idema Pew Library & Information Commons eschews the traditional college library in favor of a dramatically new approach: an inspired integration of space, furniture and tools for active learning.

GVSU's new library supports individual and collaborative learning, allows access to content in any form and responds to changing rhythms of learning.

"Up to 90% of learning happens outside the classroom, so this library is an academic hub for learning that reinforces what they learned in the classroom," says Van Orsdel. Post-class learning often happens in informal learning spaces in the library, places students choose to support their individual needs. In these self-directed learning spaces, true student discovery often occurs. And as group work and collaboration take hold in classrooms, library spaces are often where team projects are completed.

When GVSU began planning their new library five years ago, they wanted to rethink the library's role in learning and how the process of learning itself was changing. They partnered with Steelcase and SHW Group, an architecture and engineering firm, to conduct onsite research. As part of their work, the team designed and prototyped two types of study spaces: 1) a group space with worktools (portable whiteboards, mobile tables and chairs, storage shelves, power access) and 2) a media:scape setting where people can connect a digital device and share digital content on two integrated flat screens, also with group worktools.

"The study was invaluable to the library planning team and the most important thing we learned is that **there are daily rhythms to the way students work alone or in groups, and seasonal rhythms based on how they complete assignments over the course of a semester,"** says VanOrsdel. Student activity increases around mid-term exams and due dates for papers. Each day also had its own rhythm. "Students work pretty much alone during the daytime. But at night, groups come together, pull apart, reform and regroup constantly. They don't just go to a table or into a room; they consult all night long."



Research revealed how student postures change through the day. While on task and hurrying between classes, they sit upright in a chair at a table. If they're waiting for a friend they kick back on a stool or in a lounge chair with a phone or tablet and relax. At night, they look for furniture that's mobile to accommodate team projects.

The university also discovered that unlike most groups, study groups (students who study difficult subjects together because it produces better outcomes) tend to meet between 10AM and 3PM.

The vagaries of student study habits presented a design challenge: plan the space for the daytime when students work on their own, or for the evening when they work in groups?

Lee Van Orsdel Dean of University Libraries

GVSU believes the best solution is to create spaces with furniture that's mobile, reconfigurable and in a variety of sizes and shapes. So the library has 19 different enclosed group study rooms that hold from two to twelve people, plus dozens of open areas with movable furniture. There are 29 types of seating, plenty of both mobile and wall-mounted whiteboards and media:scape collaborative settings in various places around the library. There are also several outdoor spaces, including an amphitheater, an indoor café, outdoor patio and even a third floor reading garden.



Hines Corporation Knowledge Marketplace

- a framework that helped define study space created a sense of enclosure and helped the team feel in control of the space
- portable whiteboards were heavily used by students in hands-on learning activities
- storage shelves weren't used much, probably because the teams didn't own the space
- power outlets were used often by students who increasingly depend on digital technology



- The west side of the library invites conversation in various collaborative workspaces, with piped in, programmed sound so users feel comfortable speaking in normal tones of voice. The east side is for quiet, contemplative work, with white noise to help mask sounds and reduce distractions.
- "In the classroom, students are involved in hands-on learning but the instructor still leads. In the library, students take control of their learning as they discover, analyze, and share information, and in the process become comfortable working individually and with others. It's a major shift from impact on student learning." being a reading and storage site to a center for active learning," says Elise Valoe, senior design researcher with Steelcase, and part of a team that studied libraries at private and public colleges and universities across the country.



About 150,000 books are in open stacks and another 600,000 are available through an automated storage system located beneath the library. This reduces the building's book footprint by 90% and frees up space where students, faculty and staff can work however and whenever they desire. These workspaces range VanOrsdel says "flexible furniture really isn't an op- from reflective, contemplative places, what VanOrsdel calls "almost cell-like spaces where a student can find refuge," to group spaces for active content shar-

> The library is extremely busy. Traffic is much higher than at GVSU's old library, and student reaction has been overwhelmingly positive. The university also is working with Steelcase and professional education associations to design ways to more effectively measure the impact the new library has on the learning experience.

> "Ultimately, we'll be able to tell if our programs and tools and spaces correlate with higher grades, with more persistence to graduation and faster times to graduation. I'm really optimistic that this is a model for other universities in how a library can have a greater

GO DEEPER

See the Mary Idema Pew Library on YouTube.com/SteelcaseTV
in-between

WHAT WE OBSERVED

Wi-fi and portable technology bring information and communication to the remotest corner of the campus, making any space a potential learning space.

Students working in teams often vacate classrooms for spaces that better support group work.

Lounge areas are comfortable but typically designed for a single purpose. Hallways often lack seating and worksurfaces where students and teachers can work before or after class.

Tech-wielding students need access to power, yet buildings typically don't provide enough outlets.

WHAT WE HEARD

"Our hallway lounge/collaboration space is the one place on campus where you'll always find people, even during semester breaks."

University Director of Planning and Construction

Every Space is a Learning Space

campus - from the classroom to the library to faculty offices. In between these destination sites are lounges, hall-ways and other informal areas that can be so much more than transition spaces. They can be flexible, friendly learning spaces for individuals and groups – all smart ways to better leverage valuable Lounges and other intermediate spaces are often in campus real estate.

Lounge spaces also should be used as great attractors – spaces where students can meet and work with others and build that most precious of campus commodities: a community. These spaces are remarkable for their energy and activity; even a small lounge area can buzz with the enthusiasm of a small team at work or a few students engaged in animated conversation.

To make any in-between space a learning space, consider each space in terms of control, comfort and collaboration.

Control. Allow students a measure of control over how they use the space, where furniture can be positioned and how it's used. To support students as they work in groups, pairs and individually, offer spaces that work for both collaborative and solo study.

Wi-fi is a given; power access should be, too. Today's students tote laptop and tablet computers, mobile phones and other portable devices and are constantly looking for places to plug in.

Comfort. Traditional soft seating and hardwood hallway chairs are limiting and typically poorly suited for the work done in today's in-between spaces. Learning involves a variety of postures: stand-up conversations, groups gathered in discussion, a long project Learning can and should happen everywhere on work session around a table covered with materials, etc. People are most comfortable (and most productive) when they can move in their chairs and still have good support and when furniture easily adjusts to suit various workstyles and postures.

> open areas, so seating and worksurfaces can take many forms, from stacking chairs and meeting tables to ergonomic task chairs and mobile project tables. Seating for collaboration is especially useful since it's designed to support impromptu communication and information sharing.

> **Collaboration.** A frequently missed opportunity with in-between spaces is to make them useful for the project work that has become integral to so many classes today. Students need tools that support collaborative learning both before and after class: methods for sharing digital and analog content; tools for informal brainstorming such as whiteboards and tackable surfaces; and worksurfaces that accommodate computers, books and other materials.



Whether students need focus time, team time or me time, Regard offers them the choice. The system supports a range of needs, while providing access to power and support for multiple postures.

Tips for In-between Workspaces

Leveraging real estate in lounge spaces, hallways and common areas is simple: give users the means for control, comfort and collaboration. These attributes can change the simplest in-between space into a multi-purpose workspace, allowing students to maximize space and support choice and control over their learning.

PRIVATE/ALONE

- 1 Furniture should support the various postures of students while studying and working: standing, leaning, working at a table, seated in group discussions, hunched over a keyboard, relaxed reading, etc.
- 2 Offer booth spaces, which students often fill first because they offer larger worksurfaces and privacy for users.
- **3** Create spaces for focus and concentration for students throughout the day.

PUBLIC/ALONE

- 1 Connecting corridors with daylight-streaming windows attracts students and can be easily equipped for study with tables, booths and comfortable seating.
- **2** Bring power to the people: it's almost impossible to provide too many power outlets for today's tech-loving students.

PRIVATE/TOGETHER

- 1 Whiteboards and lounge seating with tablet arms or small worksurfaces help define smaller, intimate spaces within a larger environment.
- 2 Portable whiteboards are inexpensive yet helpful tools for groups creating and evaluating content.
- 3 Small project rooms located near open areas provide workspace for student teams.
- 4 Mobile tables, chairs on casters, seating that nests or stacks and portable whiteboards let users set up quickly for the work at hand and allow them to make the space their own.

PUBLIC/TOGETHER

- 1 Students and educators typically have to quickly vacate a room at the end of class to make way for the next group. Small collaboration spaces located outside the classroom invite students to continue class discussions.
- 2 Informal seating areas near classrooms give students convenient places to connect before and after class.
- **3** Create niches in hallways for groups of instructors and students moving in and out of classrooms.
- 4 Postural changes support how students choose to work and provide choices to allow individuals, pairs or teams to work together.

Collaborative choices

From standing-height tables to collaborative seating, this lounge provides students a variety of spaces to choose from, whether studying alone or with others.

a full top or is available with a technology tray and power for a great place to recharge and study.

The Campfire Big Table can be used as a meeting

place or a workstation for six people. It comes with

PUBLIC/TOGETHER +

FEATURED PRODUCTS

Campfire Big Lounge 135	Campfire Big Lamp 143
Campfire Paper Table 138	Campfire screen 143
Campfire Big Table 138	Scoop stools
media:scape mini142	

Comfort space

This is a highly social lounge space where students can intentionally or coincidentally connect with faculty or fellow students.



i2i seating is designed for collaboration, offering students the ability to orient themselves to their fellow collaborators without taking away their focus or sacrificing comfort.

FEATURED PRODUCTS

Bob lounge chair i2i collaborative seat Bob side table



	135	
ating	136	

Blended learning collaborative

This space encourages informal interactions and is ideal for research projects when students need to connect with a remote expert or team.

Collaborative lounge

This in-between space offers a unique lounge aisle with small collaborative tables on the left and soft seating with tables and power built in on the right, offering students and educators choice and control over where they work.



A variety of spaces gives relax, study or socialize.



FEATURED PRODUCTS

Enea Lottus chair Lagunitas Enea table

76



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																						 	1	3	8

Collaboration

Learning expands beyond the four walls of a classroom. Making use of in-between spaces allows every space to become a learning space.

Extending instruction

before and after class.

Instruction and collaboration no longer need to end with the class period. In-between spaces outside classrooms can work harder to continue class discussions.



FEATURED PRODUCTS

Buoy Campfire Big Loung media:scape kiosk.



Soft seating provides a touchdown space for students that arrive early to class.

PUBLIC/ALONE PRIVATE/TOGETHER



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Campfire Screen 143 Campfire Personal Table

Customer Story Summit Public Schools **Bay Area, CA**

In-between space can - and should - be more than just space for occasional learning. At Summit Public Schools' two San Jose high schools, a space between four break-out rooms is an integral part of the learning experience. Called The Intersection by faculty and students, it's 3,800 square feet of learning space with a variety of seated- and stool-height furniture that supports students as they work alone or with peers and engage with instructors.

This learning space is part of the school's pilot of blended learning, or as they call it, optimized learning. "It's been so successful as an approach for teaching math that we're moving to teaching all subjects this way in our new schools," says Linda Stevenin, M.A., an architect and director of facilities development for Summit, a public charter school system in northern California.

Their approach is based on constructivism: teachers actively involve students and guide them to construct meaning as they make their own discoveries during the learning experience. "In sync with self-directed learning, we want students to have choices. If they take responsibility for their own learning, they develop self-awareness as a learner and what places and methods work best for them for learning different subjects. Maybe an individual learns best working with a peer for math but learns English best on their own. The furniture choices in The Intersection support the various ways students work and learn."

"There are areas for small and large group collaboration, places for individual work, and areas expressly for teachers and students to work side by side. Our overall approach was, what kinds of spaces will kids enjoy working in?"

"The stool-height tables are the most popular places to work. The students think of them as café settings. It feels different working there. The key is that they can choose; they have control. This approach supports the independent and collaborative work they have to do, which in turn helps prepare them for the same type of work they'll have to do in college and, of course, in the real world," says Stevenin.

The Intersection includes a range of learning spaces:

• two and four-person spaces with Move seating and Alight ottomans

 lounge spaces created with Campfire Big Lounge and Screens and low tables

• counter-height Groupwork "tutoring bars" for students who need a teacher's assistance

 stand-up height Groupwork tables and Move stools

• seated collaboration furniture, Campfire Personal Tables and Alight ottomans that configure to fit any size group

 Verb rectangular tables with side docks and hooks for team project work

> "Forget past assumptions. Forget the word 'classroom.' Instead think about what kind of spaces kids need to support learning."

Linda Stevenin, M.A. **Director of Facilities Development**



Stool height tables and chairs are "the most popular place for the students to work," says Stevenin. "The students think of them as café settings." Teachers also like these spaces; having students and teachers at the same eye level creates a more personal experience.

There's an added bonus to the café-height workspaces. "They also help teachers. As they move around the room, they can easily see what's on the students' laptops and tablets, so they can help keep the kids on task. They're at eye level with the students; it's a more personal experience for the students and teachers. Students feel the teachers are not just looking over their shoulder, they're helping them learn."

Practically all the furniture-chairs, tables, tutoring bars, "Forget about the assumptions from past experience etc.—is on casters or light enough (ottomans, personal and be open to what's possible. Forget the word 'classtables) to pick up and move easily. "We can rearrange room.' Instead, think about what kind of spaces kids The Intersection based on what needs to happen each need to support learning." day," says Stevenin. "Recently, student volunteers and





Booths in The Intersection have screens and tables that move easily. "We can pull the screen out a bit, make it a little more open so the students stay in the teachers' view."



Personal tables, ottomans and whiteboards can be arranged quickly in The Intersection. "We can rearrange based on what needs to happen each day, how the students need to work on a particular subject, whatever we need," says Linda Stevenin, director of facilities development.

teachers rearranged the entire Intersection in one hour. That's pretty cool to be able to do that."

The Intersection strategy not only ensures that in-between space is an effective learning environment, it exemplifies Summit's overall philosophy of learning. As Stevenin notes, "We believe students should be able to learn anywhere, anytime and at their own pace."

> Make in-between spaces integral to learning; The Intersection, a space between four break-out rooms, includes spaces for learning individually, in pairs and in groups, as well as settings for assessment and instructor guidance.

café

WHAT WE OBSERVED

Students are as likely to use a café for relaxation, socializing and individual and group study as they are for dining. Traditional dining halls with serving lines are being replaced by more open, interactive environments that are more residential in scale.

Gen Y students tend to graze. They consume four smaller meals daily and at nontraditional times, so café hours are longer. Teaching assistants and adjunct faculty use cafés for class prep and office hours.

Students work individually and in groups in cafés. But when they want to eat or study alone, sitting at a large table makes them feel self-conscious. Lack of power outlets is a common complaint.

Students enjoy using cafés as places to socialize and be entertained, to escape from the rigor of their academic lives.

Cafés are often a focal point of environmental sustainability, with an emphasis on sorting and recycling materials.

WHAT WE HEARD

"I feel like when I'm outside of class, it's a different kind of learning. It's more about learning about different types of people, and you learn by talking with them."

Student

"I give assignments where students have to collaborate with one another... they do not pick their own partner. It allows them to have a dialogue outside class."

Professor

Dining, Relaxing, Studying

Café spaces are sales tools for schools in the race to keep up with peers in recruiting and retaining students. The design of the space and food services are geared for the new types of connections that are expected of today's students – from collaborative group work to social interactions and solo studying. These spaces must support the learning that happens outside the walls of the classroom.

As a result, the institutional dining hall concept is disappearing as schools update old facilities and build space exem new café spaces where the food is made fresh to order on campus and the furniture, lighting and art are contemporary is access to and welcoming. Food preparation in an "exhibition" power outle kitchen is the new norm. Sustainability issues include and faculty. trayless dining and no styrofoam packaging.

To support the emphasis on quick, grab 'n go food service and the many uses of café space, offer a mix of booths and standing-height tables, as well as two-and four-person seated-height tables. Outside courtyard spaces with tables and chairs are typically included, even in northern climates.

As schools cater to a generation used to convenience and a palette of options, our research suggests that the new strategy for the café considers three key factors: community, comfort and study. **Community.** Cafés are places for students, faculty and staff to gather at any time of day or night. Faculty use them to meet with peers or students. Students socialize, dine, relax, study and work on group projects. A mix of open, often loud spaces and places for quieter study is needed to meet the needs of the community at this campus crossroads.

Comfort. Students like spaces that are bold and colorful, so schools are using seating fabrics, carpeting, art and graphics to create unique, fun café spaces.

Students traditionally respond to a modern aesthetic and high-quality furniture in classrooms, common areas and cafés. They want a variety of seating and table options for the different ways they use cafés and the postural choices they prefer.

Study. The café's role as a transitional or in-between space exemplifies how learning happens everywhere on campus today. Wi-fi is expected in the café, as is access to power. But there are often not enough power outlets for today's technology-laden students and faculty.

Touchdown computer kiosks and benches are helpful for students checking class assignments and grades, communicating with faculty and getting a bit of work done on the way to and from class.

Tables aren't just for lunch trays anymore; they're worksurfaces for laptops, smartphones, books and everything else a student can load into a backpack. Consider providing mobile, comfortable seating; power access at table height; and screens that provide some privacy.







An open café environment that supports dining and work allows for impromptu collaboration between students or with instructors. Regard[™] supports a range of settings and postures.

Tips for Café Spaces

Cafés are used by everyone, from students and faculty to staff, visitors and vendors. They need to be welcoming spaces that work for a variety of uses, from dining and socializing to individual study and group work. A mix of spaces—quiet and loud, public and somewhat private—helps support the many ways cafés are used.

PRIVATE/ALONE

- 1 Provide small, private spaces for quiet study adjacent to larger, open cafés.
- **2** Create side spaces and nooks that allow individuals to retain privacy yet remain connected to the larger café space.

PUBLIC/ALONE

- 1 Standing-height computer kiosks or benches of small computer stations are ideally suited to students who need to quickly access technology.
- 2 Provide enough power outlets for today's heavy users of technology.
- **3** Provide seating for different postures, primarily using chairs and stools but also some lounge seating.
- 4 Provide enough seating for high-capacity work or study environments while maintaining personal space and territory for individuals.

PRIVATE/TOGETHER

- 1 Provide small, private spaces for groups adjacent to larger, open cafés.
- 2 Create side spaces and nooks that allow groups to retain privacy and work together while remaining connected to the larger café space.

PUBLIC/TOGETHER

- 1 Booths are hard to beat for group dining, socializing and studying.
- **2** Mobile, collapsible tables support many uses and store easily.
- **3** Lightweight tables can be grouped when students need to work together.
- 4 Café spaces are often used for large meetings. Stackable seating and nesting tables adapt to different room configurations.
- 5 Encourage users to stay for working, eating or socializing by supporting a range of postures and space to temporarily set out materials.
- **6** Use furniture and layout to build community and foster interaction.
- 7 Use new seating fabrics that combine stain resistance and durability with a soft feel.

Café Spaces

More than simply café spaces, these are places for community building and oases of comfort, as well as places where students study alone and with others. Faculty and staff will appreciate these spaces for meeting with colleagues, prepping for class or holding office hours with students. In addition, the applications here leverage the café's role as a focal point for the institution's commitment to environmental sustainability.

PRIVATE/ALONE

Things like large worksurfaces and access to power offer students the ability to continue their studies before or after a meal. Private spaces offer students a variety of study nooks throughout the space.

PUBLIC/ALONE

Individuals are offered a range of spaces to support work while in close proximity to others, whether for quick touchdowns or lengthy study periods.

PUBLIC/TOGETHER

This café's floor plan is dedicated to building community on campus. Design social hubs within the space that are inviting and offer variety for students to choose from, including soft seating and other booth-like spaces.

PRIVATE/TOGETHER

Support group work outside classroom hours by allowing groups to meet within the café with private spaces for collaboration and group work.





GO DEEPER

Read about the New Third Place in 360 Magazine at 360.steelcase.com

Customer Story Steelcase Global Headquarters Grand Rapids, MI

Drawing insights from our extensive research and behavioral prototypes—spaces where the company tests new theories on itself in real work environments-Steelcase reinvented the cafeteria at its global headquarters.

The former cafeteria had drawbacks typical of many corporate dining areas. It was busy in the morning for coffee, during lunch and again for afternoon breaks. At other times it was a ghost town. Furniture was designed for dining, not working, and its basement location put it out of the main traffic flow.

one-on-one meetings, project sessions to impromptu collaborations and a series of planned and unplanned interactions throughout the day, and 5 o'clock is no longer day's end for most workers.

This understanding led to design strategies for WorkCafé, an onsite third place that combines the best of both worlds: a coffee shop vibe with the functionality of a well-planned office.

STEELCASE EDUCATION INSIGHTS + APPLICATIONS GUIDE

industry and location."

Jim Keane, **Steelcase CEO**

Food and beverages are available throughout the day. Focused and collaborative areas for both individual and group work are blended with areas for dining. Social and respite areas support socializing, working, networking and relaxing. Informative learning spaces help workers connect with colleagues and learn about the global company.

The space is welcoming, inspiring and well-equipped (including wi-fi, power outlets, media:scape, etc.).

People now come from across the Steelcase campus and other locations worldwide to the WorkCafé to eat, work, meet, socialize, network and relax. This space supports so many different activities that it's become a busy intersection for Steelcase employees who are working in an increasingly global, interconnected company.

WorkCafé sets a new standard for what the cafeteria can be-and more important, what it can accomplish: a better place for people to work that enhances collaboration and innovation, attracts and engages workers, strengthens the organization's brand People move constantly from focused individual work to and culture – and optimizes the company's real estate investment.

> Creating an onsite third place encourages students to eat, study and socialize.

resident life

1018

WHAT WE OBSERVED

The format of the resident life experience is changing.

The traditional dorm experience does not support the needs of today's and tomorrow's students.

Today, floor plans must support multiple living conditions and community building.

Study spaces, community spaces, activated in-between spaces and even classrooms are all functional areas that must be supported in today's resident life centers.

New Living Spaces

The traditional dorm room is changing. Dormitories no longer consist of rooms stuffed with four bunk beds and community bathrooms, with students split by gender at opposite ends of the campus.

and support students as they learn and grow. It's no longer just about sleeping and studying, but about building community and enhancing the overall learning experience.

Many schools encourage first-year students to live on campus in an effort to become more connected to the community, its lifestyle, culture and expectations of the institution. These connections not only help students to develop, but are critical for schools focused on student retention, an increasingly important issue.

Residence buildings are increasingly designed for specific disciplines, such as the arts, science or business, to further enhance these communities of practice. In many cases, students not only live with individuals within their discipline but also attend class and study within the residence hall.



of full-time public college students live on campus

As resident life buildings are expected to provide study and learning spaces as much as living spaces, the design of these spaces must be reconsidered. **Opportunities to mingle and co-create must be** supported within these new spaces. Students should be able to find areas for focused study and to meet with groups.

A combination of "alone" and "together" and "public" to "private" spaces provides students with a range of settings that support their growing and changing needs. These spaces must support the wellbeing of Today's resident life buildings are designed to foster students while keeping them connected to the information and tools they need to study, as well as connected to others.

> Keep students on campus by providing secure spaces that are inviting, hospitable and supportive of the busy student lifestyle. By providing a range of places and postures that support different study styles and student preferences, the resident life space becomes more than just a place where students sleep but becomes a place where students live and learn.



of full-time private college students live on campus



Resident life spaces increasingly demand a range of spaces for students to connect, collaborate, focus and even learn in formal classrooms. Hosu supports a relaxed posture with maximum comfort.

Tips for Resident Life Spaces

Resident life spaces are expected to deliver much more than a place to sleep – they are places where students both live and learn. To make these spaces effective, consider the learning styles and social needs of students today.

PRIVATE/ALONE

- **1** Supports individuals' wellness and security with spaces that are completely private.
- **2** Offer spaces where entry is by invitation only, even to a suitemate.
- **3** Offer students the privacy they often need to study and relax.

PUBLIC/ALONE

- 1 Offer spaces throughout the building that allow students to study alone together.
- 2 Provide a variety of furnishings to support student choice and control of places and postures while still supporting the need to be connected with others.
- **3** Make power readily available wherever students study, socialize or lounge.

PRIVATE/TOGETHER

- 1 Allow residents to gather or invite friends in common areas throughout the building.
- 2 Provide private work rooms where teams can go to work together.
- **3** Offer secure spaces for groups of students in the comfort of their own living spaces.

PUBLIC/TOGETHER

- 1 Give students gathering places when in large groups.
- **2** Offer spaces for socializing and group work with access to technology when needed.

Customer Story Michigan State University **East Lansing, MI**

College life can be an intimidating experience for incoming freshmen, and the scale of a large university can add even more stress. Michigan State University uses its residence halls to help students connect with others, create a sense of campus community and ease students' transition to college. They're in the midst of a 10-year effort to transform their residence halls into a world-class model of student residential experience. "When students live on campus and engage socially and intellectually within the college community, they're more likely to stay in For example, the Brody neighborhood of six residence school, more likely to graduate in four years and have higher GPAs," says Amy Franklin-Craft, associate director of residence life.

A major public university, MSU has nearly 48,000 students, 200 academic programs, more than 600 buildings – including 27 residence halls – and 5,000 acres of campus with 2,000 more planned for development. They began residence hall renovations in 2009.

"Our campus has five neighborhoods, each with four to six halls, with student support services for living and learning in each neighborhood," says Christine Lockwood, interior design project manager, Design and Construction Management.

The neighborhood is more than a cluster of halls; it's a way to nurture the community and foster student academic success, health and development. Each neighborhood's engagement center is the welcome point and provides assistance with anything from course assignments and career planning to flu shots. "We're bringing resources closer to students, meeting the individual needs of students and helping them more easily connect with faculty, support staff and other students. It's more than geography, though. University personnel across student affairs and academic units work collaboratively to create intentional learning environments. It's all part of our goal to help students feel part of a smaller, more intimate community," says Franklin-Craft.

halls includes an engagement center with a reception area, private offices for counseling and tutoring, small study spaces, dining commons and a separate café. The center serves "as a kind of one-stop shop in the neighborhood for services, opportunities and spaces designed to support the needs of students."



East Neighborhood Engagement Center, Hubbard Hall Photos by MSU Neighborhoods



Student group in private study room with Think task chairs for long-term comfort and support.



seven years ago," says Lockwood. "You can put it in small spaces, in a corner, in a lounge retreat as part of a larger lounge area.

"We've used Bix booths since they came out or a coffee shop." Here, Bix forms a comfortable



The Math Learning Center supports students at all levels and helps take away the stigma of students feeling less prepared than their peers in math courses.

"We're making the residence hall more than a living place, but making sure it still feels like a home."

Christine Lockwood, Interior Design Project Manager,



As part of their strategic plan, MSU rethought the use of residence hall real estate. Traditionally, dorms were for sleeping, studying and dining, but now MSU residence halls are being reconfigured to include a variety of different types of space. "By providing a range of different spaces and services, we're making the residence hall more than a living place, but making sure it still feels like a home," says Lockwood.

now, residence halls are replacing traditional dormitory colors. "No one has ever said, 'I wish these walls were beige.' We're using brighter colors, carpet with cool patterns and colors, and interesting artwork that invites students to leave their computers and to engage with others," says Tanya Zhuravlev, interior designer at MSU. The university has also commissioned artists to create wall graphics and artwork.

Residence halls now include these types of spaces:

- open study spaces where students can study with others outside their living quarters
- small rooms for group study, project teams, club meetings, etc.
- classrooms within the residence hall
- community kitchens for student use
- lounge spaces throughout, replacing the traditional single large lounge room; these smaller spaces offer multiple uses instead of being a big living room with a single purpose



"We have a whole new generation that's seeing this bold, bright color palette on TV, the Internet, music videos. It brings a youthfulness to the residence hall that students can relate to, and it helps bring them out Just as homes have a broader palette for interiors of their rooms and into public spaces," says Zhuravlev.

> Some residence halls at MSU still offer a more traditional surface materials palette "for students who prefer a residence hall with a more traditional character," Zhuravlev says. Offering a range of residence hall choices is part of the university's overall strategy, as exemplified by MSU's integrated dining system. Students can choose from residential and retail dining venues in varied formats, more flexible dining plans and longer hours of operation.

> MSU has enlarged the concept of a residence hall to include multiple options for studying, working with peers, finding assistance, socializing and dining. These aren't simply dormitories; they are places to learn, engage and grow. Exactly what college is all about.









h 2 1237

office spaces

For years, space has equaled status in education, but the world has changed along with the type of work faculty and administrators are expected to perform. And just like students, the tools used in today's academic offices have changed.



The traditional approach to faculty and administrative spaces is hardly inspiring a new approach to teaching and learning. How can space inspire these workers to think differently?

This new workplace must address the diverse ways people are working today. It must support collaboration while recognizing that real estate is often at a premium. It should consider that a school's brand is a valuable asset, often helping to attract, develop and retain faculty and staff. Finally, it must recognize the importance of employee wellbeing at the work- ty is accomplished. place and its impact on overall employee productivity.

Optimize real estate.

One of the most significant ways to maximize real estate is to figure out how to reclaim real estate that isn't working as hard as it could, or **should.** Providing a range of settings for all workers to use is an effective way to maximize real estate. It allows every square foot of real estate to be utilized, and in a way that supports what people really do while working.

People engage in four modes of work: collaboration, focus, learning and socialization. One type of space does not necessarily support all of these modes. A range of spaces that are designed to support these activities can provide everyone in the organization with the type of space they need for a particular task at a particular moment.

The adjacency of the settings is as important as the solutions designed within them. How they relate to and complement each other is essential to the overall success of the space. Within the settings it's critical to provide the tools necessary for the space to best support the work that is being done, as well as to think about the overall atmosphere that is created within the setting.

Enhance collaboration.

Collaboration is the way innovation is achieved. Understanding how to increase the number of collaborative spaces within the workplace is not a new issue, but we should now consider how to enhance collaborative work in addition to increasing the kinds and number of places where this critical work activi-

Collaboration isn't always a destination, it's iterative and rolling, so these spaces should be both formal and informal, increasing the likelihood of chance encounters and stand-up discussions. When thinking about designing spaces for collaboration, Steelcase research suggests three key considerations should come together:

- **People** Design space to promote eye-to-eye contact
- Place Create enough room so people feel comfortable to get up, move and participate
- Information Provide everyone equal access to information so participants can contribute digital or analog content

Attract + develop + retain.

In the battle for talent, can you get and keep the best? It's critical to take space into consideration when trying to attract, develop and retain faculty and staff. Steelcase research shows that people expect the workplace to provide access to information, to people and to tools and technology. To support these needs, provide spaces that offer employees choice and control as well as a range of spaces and tools to support their work.

Build brand + culture.

Space gives permission to behave differently-in order to change culture, the space should also change to A space has to match the values of the institution. It can't just be in public spaces to show visitors. It has to be carried through the entire space to shape the behavior of faculty and staff.

Support wellbeing @ work.

and it is a holistic look at wellbeing that needs to be addressed. Spaces should support a variety of pos- and solutions to support the ways people work. As tures, as well as settings that consider what people the framework indicates, it has to include the right need physically, cognitively and emotionally. This includes everything from chairs to surfaces, collaboration tools to personal work tools and the overall ambience of a space.

Regardless of how much disruptive technologies have changed the ways faculty and staff work, people still need people. A great workplace today is one that makes people want to come together, to enable the types of behaviors the organization desires. do the things that can only be done when people work together. The ways individuals work together today are both physical and virtual, and a workplace designed for the wellbeing of the workers is one that considers how to encourage and support both.

The issue of wellbeing at work is a multi-faceted one, Today's most productive and efficient faculty and administrative spaces offer the right blend of spaces amount of space for individual "I" work, as well as group "We" work. And there needs to be a combination of spaces that are shared or owned. These spaces offer flexibility and can accommodate change. But there is no "cookie cutter" solution - each organization is different and each one needs a different blend of spaces.



SHARED

Similar to informal learning spaces, Steelcase research shows office spaces must accommodate a range of behaviors, work styles and tasks.

faculty office

WHAT WE OBSERVED

Faculty offices are set up for private, individual work but often need to function as reception areas, collaboration spaces, storage closets, research centers, etc.

Shared offices are not uncommon, especially for nontenured faculty. But having to juggle schedules, multiple users and varying workspace needs often results in the offices going unused – or ending up being so crowded that actual work cannot be accomplished.

Faculty members enjoy interacting with peers and sharing ideas and their own lessons learned as a means to develop communities of practice.

Offices are not well-equipped for collaboration – there are few markerboards, projection devices or easily shared screens.

Social spaces lack amenities (copiers, coffee, supplies, etc.) and often go unused by faculty members.

Multi-purpose Academic Spaces

The typical faculty office was designed in a bygone era as a private inner sanctum and repository for printed material. Amid bookshelves and papers stacked high, instructors hunched over student assignments and research papers. When computers arrived, instructors merely stacked stuff higher to make a little room on an already overcrowded desk.

A variety of teaching strategies and new technologies are demanding a new approach to the faculty workspace. Instructors meet frequently with peers and students – who are often carrying tablet computers and other new digital devices – making it necessary to consider tools such as multiple screens. Running out of room in the office, instructors try to hold private conversations standing up or in the hallway outside their office while everyone nearby can listen. It's no way for collaboration or student mentoring to take place. These offices are often situated along the window wall areas of a double-loaded corridor, which means that a wave of hundreds of students moves through the space at every class change.

Inside their offices, instructors have their own ways of organizing information: there are filers, pilers and arrayers. Filers organize information in orderly folders in file drawers. Pilers are just what they sound like: they can practically hide behind towering stacks of materials. Arrayers spread out information across different worksurfaces during the day so nothing is ever out of sight. Faculty members are often hoarders, stashing away information, books and student work for that "just in case" situation.

An instructor's continual process of teaching, researching and learning is now as much a team sport as an individual effort. Consider the design of a group of faculty offices, or neighborhood, around three core activities: concentration, contemplation and collaboration. These may or may not be separate areas of the office but actually fluid zones designed to support a range of activities.

Concentration. This area centers on a worksurface with nearby files and shelves geared for the way the instructor stores information. An ergonomic chair supports long hours of concentrated work. There may also be a guest chair for a longer discussion with a colleague or student, as well as a flat screen to display digital content.

Contemplation. A high-back adjustable chair with footstool and space divider creates a place for reading and quiet reflection. This area becomes a protected work zone just a few steps from the "front porch" and concentration areas, so the instructor's work-in-progress is protected from visitors. It's a refuge from an increasingly complex and fastpaced workday.

Collaboration. Chance meetings to share ideas with colleagues are the lifeblood of an academic. The faculty office entry, or front porch, hosts these collaborative discussions without intruding on an individual's private space. Provide a markerboard, stool or guest chair, small worksurface and flat screen so instructors can share content and engage quickly. This area is also ideal for office hours, when instructors meet with students seeking assistance.

Faculty members still consider a private office and its size a reflection of their status. Institutions can create more versatile, effective and comfortable faculty offices in a smaller footprint by planning spaces with these three essential zones in mind.





This private office works harder and smarter than ever before by creating specific zones for concentration, contemplation and collaboration. media:scape mobile enhances collaboration among faculty and with students.

Tips for Faculty Office Communities

Plan a faculty office space as a part of a neighborhood that supports three core activities: concentration, contemplation and collaboration. Faculty need to connect with students, co-create with colleagues on research and curriculum and to feel a part of their academic community.

I/OWNED

1 Rethink private offices for flexibility. Plan a zone for conversations near the door, collaboration further inside and contemplation farthest from the entrance.

I/SHARED

- 1 Benching worksurfaces or small-footprint workstations provide much needed space for part-time faculty, and their open design allows for more interaction with other faculty.
- 2 An office front porch creates a working buffer zone: a standing-height table hosts impromptu meetings while confidential materials reside inside the concentration and contemplation zones.

WE/OWNED

- 1 Freestanding furniture systems adapt to the wide variety of faculty office shapes and sizes, with components to provide worksurface, storage, meeting support, privacy, writing surfaces, worktool support and definition for different zones in the office.
- 2 Use this space to foster change and innovation. Project rooms are a great place to try new ideas and fail safely behind the scenes.
- **3** Secondary worksurfaces that are mobile act as a collaboration table, a place to array information, additional storage, etc.
- 4 Faculty members often choose their office furniture, and furniture systems can provide the function, versatility and aesthetics (wood and wood/steel blends) that meet both faculty desires and institutional standards.

WE/SHARED

- 1 Small huddle rooms located near open-plan workspaces for contingent faculty provide them with private places for phone calls, student conferences, etc.
- **2** A faculty resource area provides a place where faculty can prepare for class and meet with students and peers without traveling far from their private offices. Coffee, copy machines and conversation help draw people to the space.
- **3** An educator needs a writing surface; portable whiteboards are ideal and at times necessary tools for faculty office neighborhoods.
- 4 Provide an intended place for ad hoc meetings and collaboration away from students.

Office Hours

Consider innovative ways to create faculty offices that support the ways educators work today, whether individually or with others.

I/OWNED

Space for work that needs quiet focus, such as research, reading, grading papers, etc. Typically includes a personal desk, storage and a chair suitable for long hours of task work.

I/SHARED

A walkup space that supports individual contemplation. It's a place for individuals without an assigned office to focus or for thoughtful work in a more relaxed setting.

WE/SHARED

A common area designed for collaboration with peers and students. Digital and analog collaborative tools should be provided within these spaces.

WE/OWNED

Often a front porch area at the entrance to a private office, these spaces welcome others while keeping files, papers and other materials confidential.



Faculty office

This space is a private office for tenured faculty that includes zones designed for concentration, contemplation and collaboration.



Focus and collaborate

on individual work.







FEATURED PRODUCTS

media:scape mini..... ... 142 Bindu seating Privacy Wall..... 143 Elective Elements FEATURED PRODUCTS

Think chair Jenny lounge..... i2i collaborative seat Walkstation

This space is for those instructors who are in and out of the office, moving between teaching classes and catching up

	media:scape141
	Duo
ting 136	Answer system solution
	Post and Beam

OFFICE SPACES FACULTY OFFICE

Private space

While collaboration drives innovation, a balance of privacy is still needed to enhance employee engagement.









FEATURED PRODUCTS

. 135 Freestand 139 Bob chair 135 Privacy wall 143 Campfire Big Lounge..... 137 Alight ottoman SW_1 Duo

FEATURED PRODUCTS

Sidewalk
SW_1
media:scape mob

Tables with integrated power allow faculty to work anywhere between classes and meetings.

PUBLIC/TOGETHER



.137 EE6 . 137 Post and Beam ... 142 Duo ile ...

Customer Story Mount Royal College Calgary, Alberta

At Mount Royal College in Calgary, Alberta, the college's international education department had grown rapidly. Like programs at many colleges and universi- "The space is forcing us to work as an entire unit, ties, parts of the IE program had sprouted wherever they could find space – in different buildings, even on different campuses. Yet much of their work was cross-functional. "We wanted to create a better work environment that would bring everyone together," says The IE space has become a Mount Royal showpiece. Lorna Smith, department director. "We needed to remove the silos between groups, and we didn't believe we could do this by using a traditional office model."

"Traditional workplaces primarily support the formal structure of an organization and its explicit processes - what people say they do," says Robyn Baxter, "Steelcase really helped us understand how space Steelcase applied research consultant. "Our methodology allows designers to create workplaces that support the informal networks that allow real work to happen, what people really do." Working closely with project architects from Kasian Kennedy Architecture and Design, the Steelcase team held a strategic intent workshop with IE leadership.

As the new department took shape, the spaces earned names, both to explain their purposes and to make them destinations.

Reference materials and display technologies are at the Trading Post, which sits beside the Knowledge Gallery, an interactive public area. The central gathering spot is the Information Promenade. Mentoring and coaching nooks are places to meet one-on-one.

Diverse spaces support different needs and workstyles: collaboration and concentration, visibility and privacy, planned and unplanned as well as permanent and temporary.

and it has also helped us realize that we need to function differently," says David Wood, manager of the department's Languages Institute.

"People seem to be really proud of being able to work in this innovative and creative space," says Judith Eifert, college vice president of academics. "From an institutional perspective, it's a very efficient and costeffective use of space."

can be used strategically and how a well-designed work environment can help organizations meet their business goals."

Surveys	of instructors reveal a changed organization:
87 %	believe the new workplace enhances their effectiveness
98%	are satisfied with their access to relevant colleagues
95%	are pleased with space for formal and informal meetings





The Knowledge Gallery is an interactive public space and host to many impromptu collaborations.

A coaching nook outside a faculty office makes a convenient place for student mentoring.

This revealed the extent of the departm communication issues:

- full-time, part-time and project employees barely knew one another
- communication had to be formally planned didn't happen
- knowledge sharing and mentoring were lin and curriculum development was slow staff often didn't even know who was in the on a given day





Private but still a part of the group, an instructor's office has areas for concentration, contemplation and collaboration.

nent's	Based on the findings, a design strategy was developed for a new environment:
often	central communal space for team building
	 views into group spaces for people finding
d or it	 spaces to support diverse work processes and storage
nited,	 user control over boundaries
	• worktools that make it easy to move from one task
e office	to the next
	• passageways between spaces to allow sharing in-
	formation and transferring knowledge

office + so administration

WHAT WE OBSERVED

Real estate costs are a continuing concern for schools; leveraging every space is a priority.

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The growth of collaborative work means workers can no longer afford to work in silos; schools are looking for ways to improve worker interaction.

Institutions are constantly competing for talent; finding, engaging and retaining top staff and faculty are ongoing challenges.

Schools are building their brands in a more competitive marketplace; real estate must support the effort by furthering the institution's culture and brand.

Environmental stewardship, including LEED certification, is of importance on campuses to students, faculty and staff.

Administrative Offices are Harder Working Spaces

Costs are rising everywhere, and educators are dealing with increased demands from students, faculty and staff. Given an institution's investment in real estate, it's not just learning spaces that need rethinking. Every space on campus, including centralized administrative office spaces, needs to work harder and deliver more per square foot. That means using space to maximize productivity; attract and engage workers; communicate a school's tradition, brand and culture; and foster more collaboration.

The vast majority of workers say having an office that helps attract and retain knowledge workers is important, according to the Steelcase Workplace Satisfaction Survey, an ongoing global survey of attitudes on work issues that has engaged more than 39,000 respondents at 133 companies. It's the single biggest issue not being addressed – and it's been that way every year since the survey began in 2004.



more face-to-face communication with other team members when in high-visibility areas.¹

1 Harvard Business Review, March 2010, citing work by James St 2 "Inside Innovation," Business Week, April 28, 2008 In the past, most work was individually focused, but today the reverse is true: 82% of white-collar workers feel they need to partner with others throughout their day to get work done. Knowledge work has become a social activity where workers build on one another's ideas and create something new together.

Reducing office footprints has an upside: density increases interaction. People in workspaces along main circulation routes have nearly 60% more face-to-face communication with other team members than do those in spaces with low visibility.

Teams have to be able to work together and collaborate, so spaces that are reconfigurable and suitable for interaction and information sharing are essential. In a collaborative workplace, people are more aware of what colleagues are doing, they have easy access to one another and it's easier to engage others in conversation.

An essential part of collaboration is sharing information, and that gets tricky when technology is involved. Projection surfaces, the ability to show a computer screen to others, a means to transfer files simply these are all concerns in building a truly collaborative workplace.

82[%]

of white-collar workers feel they need to partner with others throughout their day to get work done.²

ker, Saint Mary's College of California







media:scape creates a space that works harder and smarter than ever before by offering dynamic collaborative spaces.

Tips for Administrative Offices

Hardworking administrative office space isn't just smaller – it's smarter. Here are ways to make it so.

I/OWNED

- **1** Make good use of vertical space in workstations for storage, worktools and technology.
- 2 Rethink private offices, which usually house the highestpaid workers. As with faculty offices, these offices should be planned to include three areas: a zone for conversation by the door, one for collaboration farther inside and one for concentrated work located farthest from the door.

I/SHARED

- 1 Lower panel heights provide more access to daylight, greater visibility for everyone on staff and more open communication.
- 2 Consider benching applications they help span boundaries that keep communication and collaboration free and easy.

WE/OWNED

- 1 Use space to foster change, where people can try new ideas and fail safely behind the scenes; project rooms are good places for risk taking and trying out new things.
- **2** Add closed enclaves for conversations that need more privacy.

WE/SHARED

- 1 Space saved by decreasing individual workspaces should be returned in shared spaces: impromptu meeting areas, project rooms and/or huddle rooms.
- **2** Provide tools for information sharing, worksurfaces for group use and vertical surfaces to make work visible.
- 3 Make group spaces tech smart: the best-used group spaces in any workplace are equipped with power outlets; projection equipment; and tools for accessing, sharing and displaying information.
- 4 Encourage ad hoc conversations with casual places for thinking and brainstorming.
- 5 Never underestimate the power of food and beverage to attract people and get them talking. Create a destination café or coffee bar area; these areas support learning, socializing and collaborating.

Greater Expectations

Today's workplace has to maximize the use of real estate, attract and engage workers, communicate brand and culture, foster collaboration and innovation and support worker wellbeing. To help combine these ideas into reality, we offer a floorplan based on insights from designers, architects and Steelcase researchers on how to plan these harder working spaces.

I/OWNED

Support individuals that require an owned space with private offices and resident workstations.

I/SHARED

Encourage individuals to work somewhere other than at an assigned desk with touchdown spaces and enclaves.

WE/SHARED

Provide shared collaborative spaces to help people connect to the culture of the institution, to the tools they need to be effective, to their information sources and to each other.

WE/OWNED

Provide collaborative spaces for project teams that require a team space for an extended period of time.



Open Collaboration

This space enhances connections among employees through serendipitous encounters and planned meetings.

Mobile neighborhood

This mobile neighborhood supports individual work in the open plan with shielded privacy.



FEATURED PRODUCTS

Enea lottus132	media:scape141
media:scape lounge 136	RoomWizard 142
Groupwork mobile whiteboard141	Post and Beam

FEATURED PRODUCTS

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Ai	rTou	ch.		 	
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during the hours they need.



.. 133 Divisio .. 140 Campfire Privacy Screen .. 142 Soto LED Task Light

OFFICE SPACES OFFICE + ADMINISTRATION

Private Office

The private office is still necessary for some workers. Support the need for focus, along with collaboration.



FEATURED PRODUCTS

Campfire Lounge Post and Beam Alight ottoman .. 135



Customer Story University of California San Diego, CA

The Housing | Dining | Hospitality department (HDH) at the University of California, San Diego, houses more than 11,000 students, staff and faculty, so it's quite adept at organizing the living and working arrange- "c:scape not only met our criteria but in many ways ments of groups of people. But the workspace for the department's own staff was another story.

The HDH group's nearly 600 employees were spread out across the campus, often working in "temporary" trailers for years. "We had no real headquarters for our department. To do business with us, you had to go to as many as 11 different locations. We needed to bring together the backbone operations, break down Open workplaces without high panels often lack adthe silos, help people communicate and collaborate, and make doing business with us more convenient for our customers," says Mark P. Cunningham, the to personalize," says Nelson. department's executive director.

The solution was a new work environment with more open, collaborative workspaces. The number of private offices was cut in half, and a variety of spaces were created for groups ranging from two to 12 people.

The main furniture elements are c:scape, an innovative Steelcase system, and media:scape, an integrated furniture and technology solution that reshapes how people collaborate. c:scape uses a simple set of components (beam, desk, low- and mid-height storage, worktools and screens) to create user-centric spaces. Workers can control privacy without creating barriers, and the 48"-high screens let HDH staffers see and be seen by others. "It's a unique system that meets the needs of the department and the needs of the building, too," says Mark Nelson, an architect and project manager at UC San Diego.

exceeded them. It's much more friendly furniture. We can route cabling so it's hidden, and the environment is very open and collaborative," says DeAnn Coombs, assistant director of procurement and contracts. The surface of the desk slides forward to reveal the connect zone, which offers easy access to power, data and cord management.

equate storage. "But c:scape has components that stay low and give people enough storage and room

HDH uses media:scape to make sharing information easy for groups of two to eight people. In any of the department's seven media:scape spaces, HDH employees simply connect one of the media:scape pucks to their laptop and everyone can view what's on their computer via the integrated monitor at the table. To switch between laptops, they just touch the puck.



"It's amazing the way you can construct a community with a building and furniture."

Deann Coombs, **Assistant Director of Procurement and Contracts** The large media:scape table is especially popular with large groups. "There's something about a circular table, the easy connection. It's packed all the time," says Cunningham.

The combination of a more open workplace, c:scape and media:scape have proven effective more quickly than even Cunningham expected. "We thought it would take six months to a year for people to embrace this new office," he says. "It's been just three months, and information flows faster now, and that's a huge benefit. You see people working with media:scape, and people walk by and they ask questions. We had no idea it could work this well, but it seems so apparent now. It's amazing the way you can construct a community with a building and furniture."

Says building manager Athena Simpson, "This furniture has without a doubt increased productivity, improved staff relations and boosted morale."

Coombs says the collaborative atmosphere rubs off on visitors, vendors and colleagues from other departments. "People all the time say, 'Oh, this is such a great environment.' It makes them curious about what we're doing. People in other divisions used to come in and go out of purchasing quickly. Now they ask what we're doing and they're more appreciative of what we do."





Steelcase Furniture contributes to the effort: HDH's new workplace exemplifies the environmental stewardship strategies of the university:

 media:scape furniture components are Silver Cradle-to-Cradle^{cM} certified by MBDC, with standard options and finishes

• wiring and cabling are PVC- and halogen-free as well as RoHS compliant

• c:scape is Level 2 Certified to the BIFMA e3 sustainability standard

 media:scape technology components are RoHS/ WEEE-compliant and carry the Energy Star[®] rating

For more information about any of these products go to SteelcaseEducation.com and search by product name.

product solutions

SEATING: CLASSROOM, COMPUTER LAB, CAFÉ





Amia® by Steelcase List price starting at \$807

Buoy[™] by Turnstone

List price starting at **\$226**



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Jersey® by Steelcase List price starting at \$836



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Emu Round[™] by Coalesse List price starting at \$386





Max Stacker® by Steelcase List price starting at **\$172**

Max Stacker® II by Steelcase List price starting at \$206



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Enea Lottus[™] by Coalesse List price starting at **\$339**



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SEATING: LIBRARY, LOUNGE, STUDENT COMMONS



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SEATING: LIBRARY, LOUNGE, STUDENT COMMONS (continued)



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media:scape® Lounge by Steelcase List price starting at \$1,273



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TABLES + CARTS: CLASSROOM, COMPUTER LAB, CAFÉ





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Series 5 Height-Adjustable Table by Details List price starting at \$1,641



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TABLES + CARTS: CLASSROOM, COMPUTER LAB, CAFÉ (continued)



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TABLES + CARTS: LECTERNS

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Verb[®] Tables by Steelcase Education List price starting at **\$612**



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STEELCASE EDUCATION INSIGHTS + APPLICATIONS GUIDE

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media:scape[®] mini





media:scape® mobile by Steelcase List price starting at **\$15,833**







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ARCHITECTURAL + PRIVACY SOLUTIONS



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by Turnstone



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Low Profile Floor by Steelcase



Verb[®] Whiteboard by Steelcase Education List price starting at \$170





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Privacy Wall by Steelcase



V.I.A.[™] by Steelcase

ARCHITECTURAL + PRIVACY SOLUTIONS (continued)



Victor2[®] by Steelcase List price starting at **\$3641**

Glossary

ACTIVE LEARNING

Engaging in multiple experiences to achieve knowledge in a subject matter

CONSTRUCTIVISM

A theory of learning and an approach to education that emphasize the ways that people create meaning of the world through a series of individual constructs

FORMAL LEARNING SPACE

A learning environment that supports a curriculum-based, educator-led and assessed learning experience

INFORMAL LEARNING SPACE

A learning environment that supports a non-curriculum-based, student-directed and nonassessed learning experience

LEARNING ENVIRONMENT

The social, physical, psychological and pedagogical contexts in which learning occurs and which affect student achievement and attitudes (from *Learning Environments Research: An International Journal* published by Springer)

LEARNING PREFERENCES

An individual's dominant mode of gaining knowledge (e.g., visual, auditory, kinesthetic)

PASSIVE LEARNING

The acquisition of knowledge without active effort

PEDAGOGY

The development of teaching strategies that support particular learning strategies



Call 800.333.9939 or visit SteelcaseEducation.com