Allsteel®

Views of a changing campus

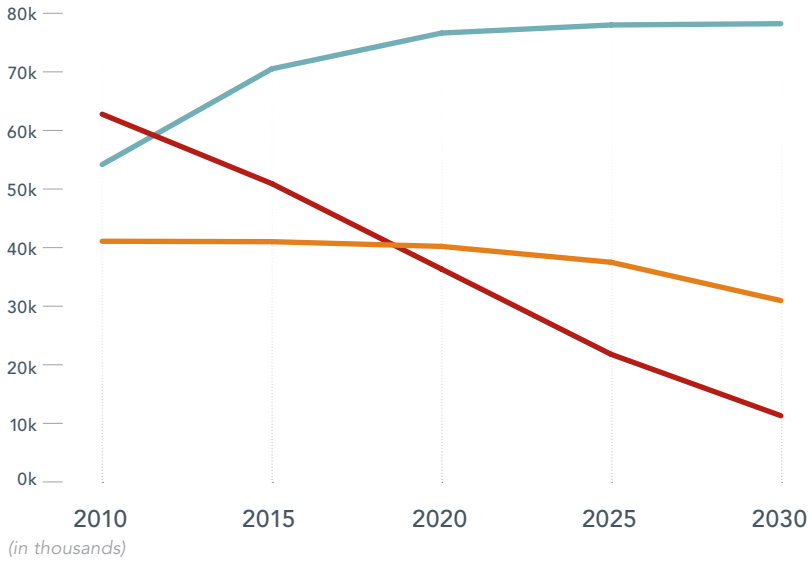
A report on the future of higher education **environments**

As a designer and manufacturer of relevant and innovative furniture solutions, Allsteel is committed to working ahead of the curve. Our ongoing research initiatives seek to identify paradigm shifts in working and learning environments, and are the basis for developing ideas that accommodate these changes. Education is fundamental in responding to change. This report presents the key issues in developing modern learning environments.

The way we work, and the work itself, is changing. By 2015, 76 percent of American jobs will require highly skilled workers. And yet, today's work pool is more shallow than ever. The Gen-X population is smaller than the retiring Boomer generation it is replacing. A large number of Millennials are barely into their careers and many have not yet reached college age. U.S. Labor Dept. data indicates that by 2012 there will be just one person entering the workforce for every four who leave. The effect of this reduced labor pool highlights the need to develop highly skilled workers.

All of this places greater pressure on higher education to renew its focus on what we learn, how we learn, and where we learn. Because of this, the learning environment becomes critical. There is greater emphasis on learning-centered education as opposed to conventional lecture-based teaching, a trend that has an influence on the physical aspects of the learning environment.

A shrinking workforce:
Projected age distribution of the U.S. labor force



(in thousands)

bB baby boomers 1946-1964 **gX** generation Xers 1961–1981 **mM** millenials 1977–1994

In the U.S. alone, beginning in 2012, nearly 10,000 people will turn 65 years of age each day.

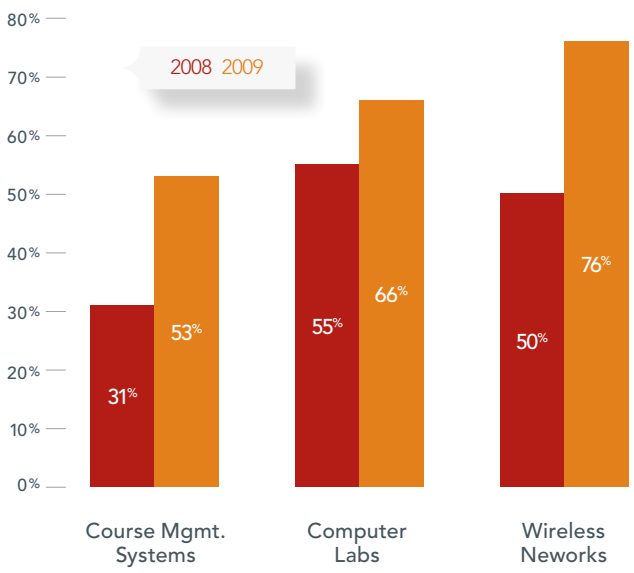
Influences driving campus change.

Allsteel visited campuses across the U.S. to gain a better understanding of the technology, culture, and teaching methodologies present in modern-day campuses. While factors may vary between regions and courses of study, there are some basic influences that nearly all institutions share and need to creatively address to succeed.

Expanding technology

Students now entering college have grown up with the Internet, cellphones, mp3 players, and the like. Many carry smartphones, laptops, and other devices and are connected via social networks and other communication options. Younger students are often referenced as "evergreen students": those who seek and readily adapt to new technology. Online video and information sites come second nature to today's students. They expect the schools they attend to have the mobile infrastructure to support them.

Increasing technology expectations:
Students place increased significance on campus technology



Source: CDW-G-2009 21st Century Campus Report

Active learning

The concept of multi-tasking has taken on a new twist. Through a single smart device, a student can be, in effect, many places at once. Anywhere there is Internet access students can meet, work, and learn. Students look for environments that not only provide this freedom, but encourage it. As a result, institutions are repurposing spaces to serve as active learning areas. These spaces may begin as libraries, but also include food courts or cafes, social areas, and collaborative learning settings. A 2008 article in *Contract* magazine stated "Today's learning environments are quickly leaving traditional models… Instead, many facilities are gravitating toward new models that embrace smaller learning communities, holistic learning, and flexibility."

Ongoing collaboration

Problem-solving, teaming, and joint projects are all forms of collaborative efforts that are gaining popularity. It is more than just students working together. Universities are creating ways to connect with each other and with private-sector partnerships for research and other programs. Adaptable environments allow for quick setup and breakdown to accommodate a variety of applications. This campus advancement mirrors today's Alternative Workplace Strategies approach that encourages a team-oriented workforce.

Sustainability

The percentage of students attributing sustainability as a deciding factor in their institution selection is on the rise. Issues such as global warming have long attracted student interest. But other concepts, such as an institution's carbon footprint, whether it has an aggressive sustainability policy, and even where it purchases food, are gaining importance. A number of universities are responding. A recent annual "College Sustainability Report Card" published by the Sustainable Endowments Institute showed that nearly 60 percent of colleges have "high-performance green standards for new buildings."

Shifts in the teaching process

As education studies indicate, traditional lecture formats are giving way to group sessions and mentoring. This demands environments that are open, accessible, and accommodate the need for a variety of learning opportunities. This, in turn, has an impact on how space is used.

The traditional pedagogical, or teacher-centered, approach is still widely accepted as a preferred method for reaching students. However, the conventional concept of an instructor at the front of a room facing students in a fixed setting is being altered. The lecture is still the primary form of teaching, but the setting is becoming less formal. Some multiple use, open space options are necessitated by budget restraints. But many of the furnishing changes are made to ensure comfort while recognizing the increasing diversity of body shapes and sizes within the student population.

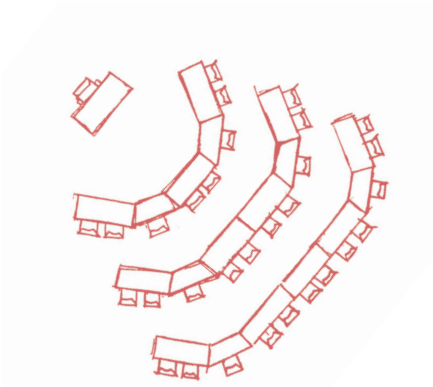
Andragogy, a learner-centered method, has grown in acceptance since its introduction by Malcolm Knowles in the late 1960s. Developed specifically for adult learning, andragogy encourages students to be actively involved in how, when, and where they learn. Open environments remove barriers between teachers and students, encourage individual contribution, and allow for a variety of impromptu meetings and study options in a single space.

Andragogy and pedagogy contrasted

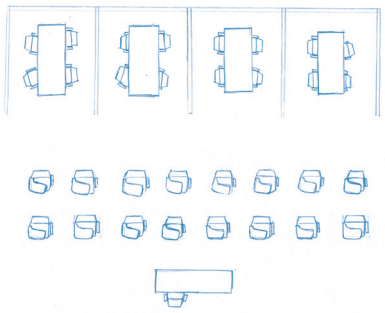
Andragogy	Pedagogy
Learners; participants	Students
Self-directed, independent learning	Dependent learning
Problem-centered	Content-centered
Flexible objectives	Predetermined objectives
Learners viewed as source for ideas	Instructor is primary source for ideas
Seminars; cohort groups	Lectures
Participation, collaboration essential	Participation not critical

Source: Knowles, M. S. et al (1984) Andragogy in Action. Applying modern principles of adult education, San Francisco: Jossey Bass.

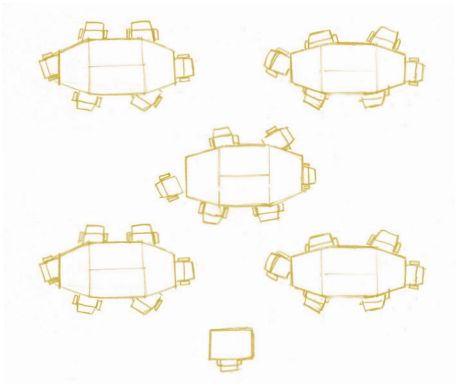
Classroom transformation



Traditional Lecture



Breakout Groups



Collaborative

The ever-changing classroom: learning anywhere there's space.

In talking with university personnel and students, it became clear to us that the image of a classroom as a stationary space needed redefining. And with it, new thinking, new spaces, and new support systems. Previously, space was used to isolate a group for a specific learning activity. The new thinking is directed toward connecting people and places and creating an active learning environment. This is happening everywhere on the modern campus, and it starts with reevaluating how and where learning takes place.

Consider basic changes in learning space. The idea is not simply to provide additional computer workstations, but to create a learning environment where learners are engaged with content and each other, which encourages collaboration and different approaches to individual and group challenges.

Creating flexible learning environments frees faculty from role-bound models and allows them more time to effectively interact with students. It also allows the institution to integrate alternative learning options, such as online, off-site learning centers, into its operation.

Rethinking the purpose of environments

As the move to develop a broader range of skill sets continues, so does thinking about the places where this can be most effectively accomplished. Adaptability is key. More open space. Clusters of easily moveable furniture that allow quick, easy configuration throughout the day. A range of options that accommodates multiple uses, such as integrating cafés with libraries or study cells with meeting areas.

Comfort is equally important. Items such as seating, work-surfaces, lighting (ambient, fixed, adjustable), writing surfaces (blackboards, whiteboards), and storage need to be flexible and provide a consistent level of comfort for a wide audience.

Connecting people and place.

Walking spaces with administrators, faculty, students, and university personnel provided insight into what each group was thinking about present and future learning environments. There is less resistance to change than a desire to find smart solutions to changing space demands. As institutions re-evaluate the effectiveness of their campuses, numerous converging influences are being considered.

The new campus landscape

With a goal of enriching the learning experience, adaptable learning environments are replacing conventional classrooms. This mirrors the cultural shift experienced by Millennial students, who have experienced this more active approach in elementary and secondary schools. It also reflects the attitudes of the younger student population who are used to studying and learning in a variety of spaces. Universities are now viewing new construction and remodeling of existing space as opportunities to create such options.

Smarter classrooms

Today's students are equipped with a range of devices that require access: Internet, wireless communication, and plug-in technology. And this just scratches the surface. According to the Dallas-based consultancy firm, Cambridge Strategic Services, concepts such as "4:1 computing" will replace the traditional 1:1 option of one device per one task. A number of colleges are keeping pace with integrated technology spaces with touch-enabled whiteboards, streaming video systems that allow instructors to access content via server and interact with students and their handheld devices, and smart desks and desktops with integrated control panels that allow students to select specific channels for each class or lesson.

Less structured space.

New exterior and interior space design is focused on eliminating conventional space limitations. Right angles are giving way to more inviting curvilinear forms that allow space to become whatever its inhabitants need it to be. Spaces are also being considered in context to daily student life. Coffee houses, book stores, cafes, malls, and small concert venues are comfortable spaces for Millennial students. Colleges hope to attract and retain these students with similar on-campus options. Hallways and other open areas, for example, are now being repurposed as meeting and study areas. Depending on space size, many buildings now incorporate small cafes or libraries. Usage may change throughout the day as well, with moveable furnishings that support a café morning and evening, a small meeting or study group late morning, and a lecture or tutorial space early afternoon.

Fresh learning perspectives

Institutions are beginning to reflect the behaviors of the changing workplace, including more teaming, more conferences, more mentoring, and more group projects. Interaction and involvement are encouraged. Both student and teacher are being afforded the freedom to step outside convention and determine how environments are structured and used.

Smart classroom features

In general, Smart classrooms are equipped with the following:

- *Interiors to support collaboration, including:*
  1. *Flexible tables and seating that quickly transition for collaboration and teamwork.*
  2. *Intuitive worksurface shapes allowing faculty to fine-tune table orientation.*
  3. *Mobile, ergonomic seating to support user comfort and promote focus on learning.*
  4. *Tabletop power/data ports to enable plug-and-play activity.*
- *Enhanced lighting controls*
- *Wall-mounted LCD projector or LCD screens*
- *Sound system*
- *Touchscreen control system*

The challenge of providing the right environment.

We conducted interviews at colleges and universities, and we learned that an institution's space needs are nearly always subject to budget scrutiny and that they are continually challenged to look for creative ways to maintain a productive learning environment. Budget cuts and funding shortfalls can diminish opportunities for new construction and hamper efforts to retool existing space. The challenge is intensified by the realization that students rely on physical space as a determining factor in making their college choice.

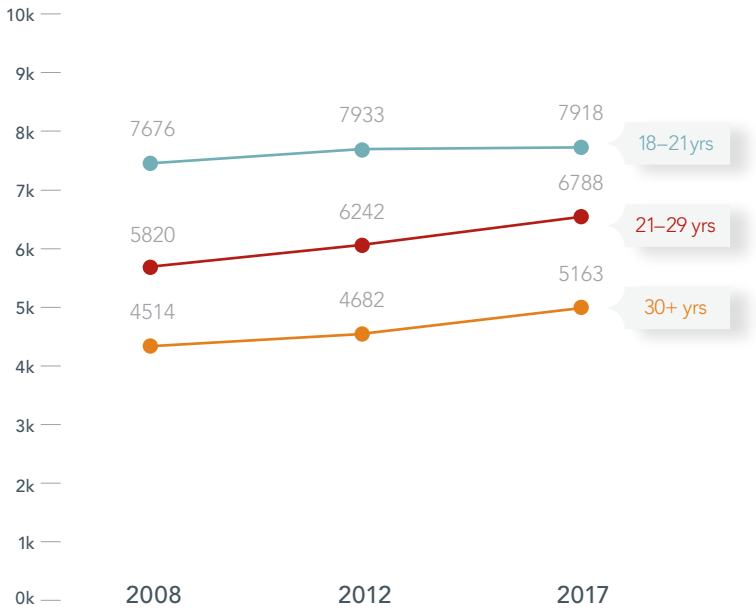
Understanding the student population is a critical factor in being able to create the best possible environment. There are more continuing education students attending college than ever before; some are finishing a degree they began years earlier or adding a second or third degree, while others are working toward an advanced degree. They may be less tech savvy and more in need of individualized learning opportunities. Incorporating flexible space allows professors to set up learning areas that work for any type of student. Increases in adult learners and student diversity requires space and furnishings to accommodate multiple body types and allow them to sit, move, and work comfortably. Some may also require more flexible seating options, especially if they are required to sit at length.

Institutions are looking for economies of scale. In a number of cases, two or more existing classrooms are combined to create a flexible learning space, an option less costly than building new classrooms. Depending on space layout, corridors and hallways can be remodeled to serve as multi-purpose study and collaboration areas.

Optimizing space may also lead to joint efforts with other community institutions. Space can be rented or shared with local businesses or community groups for meetings, training sessions, and seminars.

Enrollment in degree-granting institutions

Source: U.S. Dept. of Education, National Center for Education Statistics (2009).



(in thousands)

The university might work out an asset-sharing agreement to provide specialized classes or training or set up an onsite classroom for an area business. Having furnishings that are flexible and durable, as well as comfortable, has a critical impact on performance and cost efficiency.

Summary

The futurist Alvin Toffler once wrote: "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn." In a fast-paced world that has grown increasingly complex, the ability to provide a meaningful education is crucial to economic and social survival. Productive learning environments are a critical element of the equation. It is our hope that this report serves as a stepping stone in developing today's creative education environments.

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Colleges and Universities
We would like to thank the following institutions for participating in our research visits and providing insights into their education environments.

Community Colleges
College of DuPage - Glen Ellyn, IL
Des Moines Area Community College - Ankeny, IA
Johnson County Community College - Overland Park, KS
Kirkwood Community College - Cedar Rapids, IA
Santa Rosa Junior College - Santa Rosa, CA

Private Schools
Loyola University - Chicago, IL
Northeastern University - Boston, MA
Northwestern University - Chicago, IL
Sanford Brown College - Milwaukee, WI
Stanford University - Stanford, CA
Stonehill College - Easton, MA

Public Schools
Bridgewater State University - Bridgewater, MA
Iowa State University - Ames, IA
San Francisco State University - San Francisco, CA
San Jose State University - San Jose, CA
Towson University - Towson, MD
University of Illinois - Chicago, IL
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