ACTIVE LEARNING CLASSROOMS
Incorporating Today’s Educational Trends
Education is evolving at an extremely rapid pace thanks to ever-changing technology and the rise of the millennial generation. From classrooms to curricula, many college and university leadership teams are faced with the need to adapt their campuses and their operations to integrate these changes.

In the following article, we explore how two trends in education, Massive Open Online Courses and Flipped Classrooms, impact both the classroom model and the overall building design. In response to the latest trends, new classroom environments, specifically Active Learning Classrooms, benefit the learning experience of both the students and the faculty.
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1. MASSIVE OPEN ONLINE COURSES
A highly debated concept, Massive Open Online Courses (MOOCs), enables students from around the world to take free courses offered by some of the country’s most elite universities. Whether or not your institution is onboard with the trend, there are some valuable lessons we can learn from MOOCs themselves:

**Interactive learning has mass appeal.**

While online learning isn’t new, the basic premise of a MOOC is to integrate peer interaction through technology into a lecture-based online teaching model. A lot can be argued for and against the MOOC model and its implications on education as a whole. However, it is noteworthy to observe the mass appeal this style of learning has as evidenced by the staggering enrollment rates – some courses enrolling tens of thousands of students according to various providers. Understanding the degree to which students are willing to take learning outside of the traditional classroom is necessary for any institution to remain relevant in today’s competitive market.

**The bar has been raised for what constitutes an effective educator.**

As one *New York Times* article¹ explains, “MOOCs will disrupt how faculty are attracted, trained and paid with the most popular ‘compensated like a tv actor or a movie actor’… students will want to learn from whoever is the best teacher.” The MOOC is only one factor impacting the way educators teach. Changes in student expectations, technology and classroom design require today’s educators to be more interactive, responsive and engaging than ever before.
2.

FLIPPED CLASSROOMS
Similarly, the flipped classroom teaching model highlights some best practices that many K-12, colleges and universities are adopting. Known also as flipped teaching, this approach essentially reverses lecture and homework locations by requiring students to watch brief pre-recorded lectures prior to entering the classroom and conducting the exercises (or homework activities) in the classroom.

What can colleges and universities take from this model?

**Interaction creates success.**

In a study conducted by MIT, “a lack of student engagement is arguably one of the major reasons for the failure rates (typically 15%) in introductory courses. More importantly, this lack of engagement is the reason many students leave our introductory courses feeling that [they are] dry and boring.” By transforming courses to remove the traditional classroom lecture model, students are engaged with each other and faculty allowing them to have more time to hear new ideas, ask questions and learn at their own pace.
3.

ACTIVE LEARNING CLASSROOMS
By reconsidering the typical lecture-based design of a classroom, active learning classroom environments enable these trends to be translated into the physical space. Active learning classrooms (ALCs) are learning environments which foster collaboration by creating an ideal space to transition from lecture to facilitated activities. Well-planned room design, flexible furniture and writing surfaces, along with technology “support faculty in engaging with their students through collaborative learning activities and more participatory use of media.” \(^3\) Such environments enable endless teaching and learning arrangements.

There are various types of ALCs, ranging in both size and purpose, but in most cases, the classrooms include reconfigurable furniture with students grouped into teams around the perimeter of the room placing the instructor in the center. On the following pages, we look more closely at a variety of ALCs.
a. Adjusting Pedagogy & Breaking Down Departmental Silos

The active learning classroom encourages interaction by placing an emphasis on problem-solving. While not all lecture-type instruction needs to be removed from the ALC, there is a shift from less lecture, to more discussion and question-based teaching. To receive the most benefit from an ALC, instructors typically require students to do some work prior to class – whether watching a pre-recorded lecture, or reading notes provided (similar to the Flipped Classroom Teaching Model). Educators must shift from “sage on stage” to a guide and facilitator model, therefore greatly impacting educators’ pedagogy and at a very high level, the curricula for your program. As students are gathered into small groups, instructors are able to present information to students in a way that best suits each group, ensuring understanding and empowering students to assist each other. Curriculum is written to engage students in the learning process, in lieu of the traditional lecture format.

Consideration should be given to encouraging independent disciplines to interact, such as finance students solving business problems alongside marketing students. In order to enable an effective outcome, leadership needs to support and encourage instructors from both departments to work together to create stimulating and appropriate courses. The benefits of encouraging this type of interaction go beyond the student experience, providing a more creative and satisfying work environment for your faculty.

b. Technology Infrastructure

Clearly, technology is critical for an active learning classroom. By having a technology-enhanced setting, collaboration and sharing of ideas is greatly enhanced. Students are able to share concepts immediately with the entire class, encouraging peer-to-peer interaction and assessment.
Even at a basic level, an ALC requires projection systems, speaker systems, multiple electronic displays, wireless capabilities, adjustable lighting, and appropriate cabling systems. Careful planning must be done during the design of an ALC in order to create a seamless experience. If the technology is cumbersome, it will hinder the effectiveness of the classroom model. Additionally, sufficient room temperature controls are critical to support a comfortable and effective environment for people.

Finally, it is important to consider the technology support your faculty may need for these classrooms – especially during the first few months. Some best practices include assigning an IT staff member to provide pre-course training for educators and select students, as well as having IT on hand to assist during classes until instructors become comfortable with the systems.
In a well-planned room with ample technology, instructors are located centrally and can display learning materials on monitors located throughout the room for general instruction.

Individual groups and tables also have the ability to work independently. Students are able to take control by table to generate and review ideas as they solve assigned problems.

Technology and appropriate room configurations allow one group to share their presentations and materials on screens located around the room for peer review and discussion.
c. Flexible Environments

Room configurations change frequently between various classes and at times, even within a class, in order to allow for various types of activities to be held. Designing for flexibility goes beyond just furniture, however. Understanding current and future technology trends, planning for “swing space” for tables and students to move around the room, and small break out spaces, enable maximum flexibility as programs mature in these environments.

d. Sound Control

It is easy to imagine that given the interactive nature of the ALC, these types of settings tend to be louder than a traditional classroom. Designers need to pay particular attention to acoustic floor and ceiling finishes in order to minimize disruptive levels of noise. Appropriate separation of spaces is also critical and wall construction should extend to the underside of the structural deck and have a sound attention factor above 50STC.
e. Not All Students Learn The Same Way

We work with our higher education clients to design learning environments to cater to different learning styles; environments that allow students to choose their level of interaction. Although ALCs were created based upon the idea that interaction fosters better education, it’s important to recognize that not all students learn well in a group learning environment; many still need a quieter environment that encourages participation. A well-designed space can allow for group and individual learning. The right furniture and well-placed alcoves can provide “soft” spaces where students can be part of the group, but separate. For example, window study bays allow a zone that is personal but still connected to the group study area.
Design allows universities and colleges to demonstrate that they understand the needs and wants of the incoming generation. Today, universities are working to become much more interactive and flexible—mimicking the behavior of the millennial generation—as they adopt new teaching styles. Students today expect to be involved in their own learning as opposed to just reading or being presented with information, which ultimately impacts the design of educational environments. Current trends suggest the most successful students tend to be those that are allowed to grow and learn in a team-based learning environment, as opposed to the traditional individual test-based environment.

References


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Our insights help colleges and universities attract top students, retain faculty and more effectively incorporate ever-changing pedagogies. We work with our clients to create hands-on and integrated educational experiences by designing learning experiences that engage students, maximize technology and allow for flexibility. The result of our designs is students who are well prepared to become exceptional professionals.