look around. explore. interact.

this is not your typical classroom. this is a prototype for the classrooms of the future.

LearnLab: A Steelcase Research Project

Steelcase studies and researches many different kinds of work environments from businesses to hospitals. Our WorkSpace Futures research group has just completed an extended study of higher education learning environments. This year-long study found that even though the ways people are teaching, learning and working have been evolving; the spaces where people learn, teach and work have not kept pace.

Classrooms have traditionally been designed to support one style of teaching, when in fact they serve a variety of functions. Colleges and Universities face pressures coming from the high expectations of a discerning new customer — Generation Y — otherwise known as Millenials, Nexters, and the Internet Generation.

At Steelcase we have a passion for understanding the needs of people, it is our goal to help create great experiences for students and faculty in university settings. We aim to provide a deep understanding of work and learning environments, and offer a wide range of products and services to meet the needs of educational institutions.

To that end our WorkSpace Futures research group is exploring a new and innovative application: the LearnLab, a prototype classroom that aids in the

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The LearnLab is a prototype of new applications equipped with technology and product that addresses the rapidly changing user needs apparent throughout our observation studies.

research process. This classroom, located at the Steelcase University and Learning Center, in Grand Rapids, Michigan, is equipped with products and technology that addresses the rapidly changing needs in today's learning environments.

The main goal of the LearnLab is to create and study a prototype, so we can learn if it sets an appropriate stage for the instructor and equips students with a learning environment that inspires collaboration.

Our research process

The creation of LearnLab is one of the final steps in an extensive user-centered research and design process.

Our research process borrows heavily from practices in cultural anthropology and ethnography as other methods such as those practiced by IDEO, Intel, Nike, Target, Pitney Bowes, etc. There are six phases in our process:

Understand — Researchers prepare themselves before going into the field by conducting secondary research. The foundation of knowledge prepares us to be smart listeners and conversant with the jargon in higher education.

Observe — The process focuses on observing students and faculty in the context of the college or university. Our goal is to gather unarticulated insights about how students and faculty learn and work.

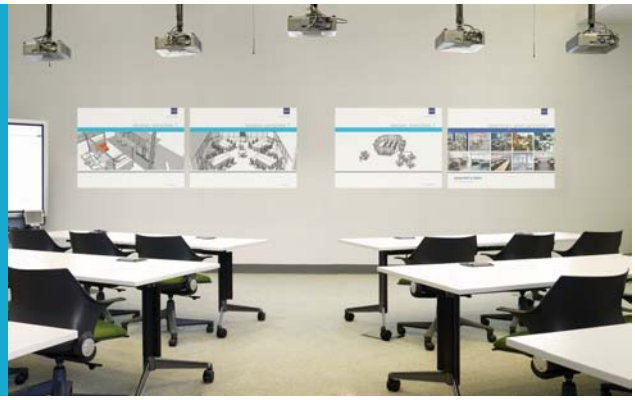
Synthesize — Synthesis is the stage at which we start to look for patterns and anomalies in the data collected. From the patterns, design principles emerge that guide design work and help us keep the user in mind.

Realize — We realize our design principles by developing sketches and conceptual plans. These sketches can be thought of as a starting point for conversation about needs and requirements.

Prototype — After presenting research findings, design concepts, and potential applications we pilot our concepts. The LearnLab is a prototype classroom and adjacent spaces. Our researchers will be observing the behaviors in the LearnLab classroom and test our hypotheses about placement of product, use of technology, etc.

Measure — During and after prototyping we collect data through a variety of techniques including time-lapse video, quantitative tools and more observation. Our goal is to understand and report on the effectiveness of the concept and recommend iterations.

What Steelcase wanted to do was design a space that can accommodate both individual and group work when using technology.



What we will be testing and measuring

Instructors Main Center Stage — The main stage that traditionally resides in the front of class has been relocated to the center of the room, to help instructors build a stronger relationship with students. The stage provides adjustable surface area for formal standing instruction or casual sitting engagements.

Student Stage — Whiteboards on opposite walls of the room provide additional space for quick notes generated from discussions. Their polar orientations can be leveraged during class activities as side stages for debate or presentation.

Flexible Space — Controls for the array of desired technologies for the class session are on a mobile lectern that can be located anywhere in the room. Mobile furniture allows the room to be arranged in a traditional lecture/informative setting or a collaborative group setting.

Layered Technology — LearnLab is testing a wired floor, multiple projectors, and easy access to large display. Students can also digitally communicate using their personal laptops to any projector in the room. They have access to the internet and the school's intranet.

Digital Collaboration — Technology has had an enormous impact on the way students work individually; however, when group work is required, individual technology does not adequately adapt to meet group needs. Having a shared space that supplies collaborative tools within easy research can help the team to be more effective. Projection screens in the rear of the classroom can be networked to student computers to provide visuals for group dialog. Technology allows team members to annotate directly from the larger projection and save notes to the networked computer.

Real-World Experience

On August 28, 2006 the Steelcase University Learning Center began hosting Grand Valley State University (GVSU) students.

This observational research study will be an extension of Steelcase's Higher Education primary research. It will allow us to validate design principles through video ethnography and interviews conducted with students and faculty.

The observation will occur during the entire semester, August through December, with two GVSU courses in Advertising and Public Relations. Insights will be synthesized and a formal report of the study will be published in spring 2007.

The Intent

We want to determine if the hypotheses works. Is the technology used? Is it used all the time, part of the time, or not at all? How is the technology used to encourage communication and collaboration? Are they receptive to a new style of teaching and learning? Are they receptive to the multiple technologies redefining traditional teaching and learning styles? Do multiple displays enhance the presentation of information? Are the instructors comfortable with engaging the students in a more informal, class room in the round setting? Do the students and instructors take the initiative to rearrange the space or do they just stay in the same location for the entire semester? Do the students utilize the in-between group settings and do they utilize the provided technology?

Stay tuned and learn with us.