

Learning Space Design

The learning space I am designing for is not a K-12 school setting. The type of learning that I am involved with is the corporate area, our group is called Alcatel-Lucent University. We are responsible for providing customer training as well as employee training, professional development and knowledge sharing.

Our industry, the products and the way we provide training has changed dramatically in the past 5-10 years. In the past we had a stable product line with high margins. Our training centers were centrally located with large spaces and elaborate equipment labs to provide hands on experiences for our students.

The current product line has completely changed and is constantly evolving at a very fast rate. Our customers and employees can no longer easily travel to distant locations and when they do they want the latest information, technologies and equipment. We can't afford to have separate facilities and labs devoted just to training. We have to provide training in our development locations where the expertise and labs are concentrated. In addition we have to provide distance learning capabilities to reduce travel costs and the reduce time away from the workplace.

These changes required us to rethink the way we produce and present our training options. We are still in the process of consolidating our facilities and developing our resources to present and produce our training products. One our biggest efforts is the use of Web 2.0 technologies to develop and present our training and to communicate and share information in our global corporate community

The building I work in is a former factory and development facility, but it has limited space devoted to learning. We have an area that includes 4 video conference rooms and several additional rooms that are under utilized. I am

proposing that one of the seldom used video conference rooms be converted into a distance learning classroom and an additional room be converted into a media creation lab to help our training developers and employees creating training and content for our Web 2.0 learning and information sharing initiative.

The Classroom

I am going to start with the multiuse classroom. Before I began developing a design I talked with two people within my organization with experience developing and teaching courses for Alcatel-Lucent. They are Larry Dougherty, Technical instructor, course developer and Kevin Freer, Learning consultant, instructor. From my discussions with them I was able to determine the proper class sizes and necessary environment to teach courses within the Alcatel-Lucent University.

I found that one of the major differences between traditional school classrooms and our classrooms was the number of students in the class and that our room may be utilized with or without students. Because the information we teach is highly technical and requires hands on software interaction, the class size needs to be limited to no more that 16 with a preferred size of 10-12 students. The class sizes are dictated by company policy and registration limits are controlled by our content management system. The room also has to function in different types of class structures. These are:

- Taught on site
- Taught on site with students and linked with audio/video to another location
- Taught remotely and linked with audio/video with students on site
- Taught locally with no students and linked with audio/video to another location.

My next step in the process was to find out what type of equipment would be necessary and what room alterations would be necessary to achieve our goals. I viewed several helpful websites that provided information on setting up distance learning classrooms. I found 3 especially helpful in the design of the room, they are:

- [McSquared Design](#)
- [Video Development Initiative](#)
- [CBT Supply Resource Room](#)

The current room set-up is based on a traditional U-shaped group meeting arrangement (drawing A). The room size is 23' 10" X 22' 4" and can accommodate the changes in configuration and still use much of the same equipment.

Since almost all of the equipment can be reconfigured and re-used, the only additional equipment that will be added will be an interactive whiteboard and laptops. Research showed that these classes are more attentive and engaged when whiteboards are used.

Lessons are more memorable because students are more engaged and motivated. Students are able to focus more on the learning moment rather than worry about capturing everything through note taking. (Smart Technologies, Inc., 2004)

Another advantage of the electronic white board is Instructors can save their work and redistribute it to the student or use it to improve future courses or lectures.

Save notes for use next class or next year. Teachers can build a collection of learning materials that can be constantly updated and written on top of, keeping lessons fresh and interactive. (Smart Technologies, Inc., 2004)

The sites I found useful in choosing my options are:

[Interactive Whiteboards in the Classroom](#)

[Research – Interactive whiteboards and learning](#)

[Durability of interactive whiteboards](#)

[Overwhelmed by high-tech?](#)

The new configuration is shown in the included drawing document, Hein_Learning Center Drawing_A2.pdf.

The interactive white board will allow the room to be used in multiple classroom set-ups. It can be used as a distance learning classroom and as a traditional classroom configured to work in teams of 2 or 4. To maintain flexibility, one of the student work areas can be used by the instructor depending on the needed set-up.

Media Creation Area

In addition to the classroom an additional room will need to be configured to for developers to produce and work on media. The area will be configured with a sound recording booth, digital capture and scanning stations, small video studio with lighting and a green screen. There will also be an equipment and prop storage area. The rooms to be utilized are currently either vacant or underutilized and like the previous room there is current equipment that can be re-used.

The media creation area has 4 media capture and workstations where users can scan images, capture video and work on media files. There is also a Whisper Room audio booth with a connected audio work station. At one end is a small video interview area with hanging lights and a removable green screen for using chroma key effects. In the middle of the room is a utility table that can be used for meetings/collaboration or large work area. There are storage cabinets that are used to hold, camera's microphones, tripods and portable lighting kits.

Equipment & software

The both rooms currently have ample power and data connections that meet the needs of the new design. The network in the rooms is connected to the corporate intranet and external intranet. Using their corporate log-in, users will be able to access any of the corporate resources. Wireless connectivity was considered, but is not practical in this situation because of network security issues.

Computers in the both rooms will be loaded with the standard corporate software under the corporate licensing agreements. Additional opensource media creation software will be loaded on the computers used in the media creation area. If departments want load specific software on computers in the media creation area, special log-ins can be created for this purpose. Classroom computers can have specialized software loaded on them if for specific classes and returned back to the standard load afterwards. It will be up to the individual departments to purchase the non standard software.

The media room will can be used on a first come first serve basis except for the audio booth and video interview area. These two resources can be scheduled using the corporate facilities management website.

In designing this area I used the resources found at the following links and my 30 years of experience in media creation and production field.

Apple – [Education – Digital Creation in the Classroom](#)

[Education Design - THINKING](#)

[Collaborative Learning Spaces](#)

[Classroom Design Guide](#)

[Classroom Design Resources](#)

The Budget

By utilizing existing equipment and space I was able to stay within the given 3 year budget. The \$10,000 budgeted for incidentals would be used for items like extension cords, bulbs, lighting and diffusion gels, R/W CD-ROM blanks, computer cables and equipment repair and basic prop supplies.

The list for possible future purchases will include:

- computer upgrades for the classroom and media creation area
- additional lighting kits

- New scanners
- 2 industrial grade HD video cameras and tripods
- Image library
- Music Library

A more detailed listing of the costs and sources is listed in the accompanying document, Hein_Learning Space budgets_A2.xls.

References

Interactive Whiteboards and Learning: A Review of Classroom Case Studies and Research Literature. (2004.) Retrieved January 24, 2010, from pangea.org

Website:

<http://www.pangea.org/peremarques/pdigital/es/docs/Research%20White%20Paper.pdf>