**LEARNING SPACES DIANA G. OBLINGER (ED)**

**CH1**

Spaces are themselves agents for change. Changed spaces will change practice. (Ref. JISC)

Learning is the central activity of colleges and universities. Sometimes that learning occurs in classrooms (formal learning); other times it results from serendipitous interactions among individuals (informal learning). Space—whether physical or virtual—can have an impact on learning. It can bring people together; it can encourage exploration, collaboration, and discussion. Or, space can carry an unspoken message of silence and disconnectedness. More and more we see the power of built pedagogy (the ability of space to define how one teaches) in colleges and universities.

Facets of learning space design:

* Learner expectations
* The principles and activities that facilitate learning, and
* The role of technology

Changes in our students (The Millennials), Information technology and our understanding of learning are the 3 driving forces behind the move to redesign learning spaces.

Today’s students—whether 18, 22, or 55—have attitudes, expectations, and constraints that differ from those of students even 10 years ago. Learning spaces often reflect the people and learning approach of the times, so spaces designed in 1956 are not likely to fit perfectly with students in 2006.

Many of today’s learners favor **active, participatory, experiential learning**—the learning style they exhibit in their personal lives. But their behavior may not match their self-expressed learning preferences when sitting in a large lecture hall with chairs bolted to the floor.

We have also come to understand that design is a process, not a product. Involving all stakeholders—particularly learners—is essential (Q: Is this not the basis of usability engineering?).

**CH2**

Emphasis: Active Construction of Knowledge by the Learner.

We can facilitate deeper and richer learning when we design spaces with learning in mind.

Learning takes place everywhere on a college campus. In fact, learning arguably happens everywhere—on city sidewalks, in airplanes, in restaurants, in bookstores, and on playgrounds. Human beings—wherever they are—have the capacity to learn through their experiences and reflections.

**Torin Monahan** used the term “built pedagogy” to refer to “architectural embodiments of educational philosophies.” In other words, the ways in which a space is designed shape the learning that happens in that space (@Ref). Examples surround us. A room with rows of tablet arm chairs facing an instructor’s desk in front of chalkboards conveys the pedagogical approach “I talk or demonstrate; you listen or observe.” A room of square tables with a chair on each side conveys the importance of teamwork and interaction to learning.

Strange and Banning (@Ref) asserted that “although features of the physical environment lend themselves theoretically to all possibilities, the layout, location, and arrangement of space and facilities render some behaviors much more likely, and thus more probable, than others.” Because we habitually take space arrangements for granted, we often fail to notice the ways in which space constrains or enhances what we intend to accomplish.

Chism and Bickford (@Ref) listed a number of typical assumptions on classroom, space and learning – See Page 18.

Environments that provide experience, stimulate the senses, encourage the exchange of information, and offer opportunities for rehearsal, feedback, application, and transfer are most likely to support learning.

@NOTE: The TRANSMITTER-CENTRIC Concept:

* Classes linked by straight corridors only (@NOTE: Corridor niches. No longer simply passageways)
* Faculty offices separated from classrooms
* Libraries without social areas?

The entry of large numbers of previously under-represented students—students from ethnic cultures that stress social interaction, older students, students blending work and learning—also calls for environments in which social interchange and experiential learning are valued. This demographic picture also favors standard adult furniture over juvenile tablet arm desks.

It makes better sense to construct spaces capable of quick reconfiguration to support different kinds of activity—moveable tables and chairs, for example (@NOTE: Drag and Drop Concept?).

Desired Characteristics of Learning Spaces:

* Flexibility
* Comfort
* Sensory Stimulation – Colours, Lighting, ambiance
* Decenteredness

We need basic research on the influence of the physical environment on **creativity**, **attention**, and **critical thinking**.

**CH4**

Community catalyzes deep learning and should be a critical consideration when planning physical and virtual learning spaces.

Were community not important for learning, colleges and universities would have little reason to exist—people could learn efficiently by reading and interacting with tutors.

Fostering community is critical to learning, regardless of whether an institution is primarily online, commuter, or residential.

We answer Boyatzis, Cowen, and Kolb’s challenge of finding ways to conduct education better by suggesting a focus on community and community building and by seeking ways in which community can enhance learning through three strategic levers:

* Improving the process of developing learning spaces
* Using information technology to enhance communication and collaboration
* Using community to improve pedagogical, curricular, and cocurricular environments

In conclusion, we explored three sets of strategic levers that can enhance learning through community processes: the design of spaces that support learning; the use of information technologies; and the design of structures for learning that encompass pedagogy, curriculum, and cocurricular programming.

Despite multiple theories about how people learn, they agree on one point: the critical role of interaction. In particular, social cognitive learning theory argues for a rich environment in which students and faculty share meaningful experiences that go beyond the one-way information flow characteristic of typical lectures in traditional classrooms (@Ref).

Some describe this as production-oriented education, with colleges and universities operating like manufacturing firms with students as **throughput** and graduates as the **products** (@Ref).

Community can and does form in the absence of significant faculty participation. However, faculty can have a tremendous positive impact on shaping, contributing to, and expanding the environment in which students learn.

In arguing that virtual learning (as well as spaces) should complement physical learning, use excerpt from page 52, In-class activities augmented by completing a significant amount of coursework online.

**CH5**

Today’s college students have been described as preferring learning experiences that are **digital, connected, experiential, immediate, and social**. Constantly connected, they seem to have no fear of technology or interacting with people they have not met face-to-face. Although they communicate a great deal online, they still want direct interaction with others. They appear to prefer learning-by-doing rather than learning-by-listening and often choose to study in groups. Much to the consternation of adults acculturated to lectures, they become impatient in situations where they don’t feel engaged.

Students’ comfort with the Internet means it isn’t “technology” to them—it may be a way of life.

See MIT’s Stream Café on Page 67, later.

See Stanford’s GroupSpace on page 70, later.

Neither learning nor socializing is one-dimensional; the physical complements the virtual, and vice versa. Since learning can occur any place and at any time, there are few—if any—locations where wireless is not valuable.

**CH6**

3 Fundamental Ideas from Environmental Psychology of Teaching and Learning

1. First, all learning takes place in a physical environment with **quantifiable** and **perceptible** physical characteristics. Whether sitting in a large lecture hall, underneath a tree, or in front of a computer screen, students are engulfed by environmental information.
2. j

Specific targets within the environment draw the students’ attention, such as armchairs, scarves, and teacups, and they continuously monitor the ambient properties such as the light of the lamps, the smell of the kettle, and the warmth of the fire. In any learning environment students are awash in environmental information, only a small fraction of which constitutes the sights and sounds of instruction.

**IMPORTANT THEMES IN LITERATURE**

* Learning Theories
* Community Learning Theories (Learning Cm, Research Cm, Cm of Practice)
* Physical and Virtual Learning Spaces – Complementing or Distracting
* Personal Space
* Social Spaces
* Formal Spaces – Classrooms, Labs Informal Spaces – Corridors
* The Environmental Psychology of Teaching and Learning
* Re-conceptualize learning spaces to facilitate **active**, **social**, and **experiential** **learning**.
* Enabling learning activities that are **distributed** in **time** and **space** (VLS).
* Effective Learning Spaces
* Literature on the influence of physical space on human activity (@Dig)
* Cognitive theory, and descriptions of the new student demographics (@Dig)
* Demographics of the Student Population (Older, disabled, social, tech-savvy, tech-null, etc)
* Community Learning Theories
* Student Practices and their impact on learning spaces

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**MORE RESOURCES NEEDED**

Diana G. Oblinger, “Boomers, Gen-Xers, and Millennials: Understanding the ‘New Students,’” EDUCAUSE Review, vol. 38, no. 4 (July/August 2003), pp. 37–47, <http://www.educause.edu/ir/library/pdf/erm0342.pdf>.

George D. Kuh et al., Student Success in College: Creating Conditions That Matter (San Francisco: Jossey-Bass, 2005).