Learning Spaces Collaboratory Webinar

Making the Case
Spaces that have a Role in Preparing Students for Productive and Meaningful Lives

October 20, 2015
About the LSC – How Learning Happens

Robust learning happens when students are:

❖ actively engaged in evaluating, constructing, and re-evaluating their own knowledge
❖ actively engaged in a social and supportive community
❖ encouraged to assess, reflect and build on prior knowledge
❖ empowered to address problems that are meaningful, of importance to them and to the world beyond the campus.
About the LSC – Spaces for Robust Learning

Spaces should enable students to:

❖ become actively engaged with peers in shaping their own learning
❖ *practice* the skills, competencies, ways of thinking and doing of a professional in the field
❖ *practice* communicating and critiquing within a community of colleagues and peers
❖ be refreshed and renewed
❖ become self-aware, reflecting on what they are learning, what they are becoming.
Learning Outcomes

How:

• spaces “signal” how they can be used, what kind of learning that they can make happen

• space-based learning really matters for preparing 21st century students for productive and meaningful lives

• all students—no matter the discipline, major, background or career aspiration—are well-served by spaces that can be understood as bridges from the campus to the world.
Affordance

......ambient information in the environment:

• properties
• surfaces
• resources perceived as useful to achieving a particular activity and to certain functions.
Attunement

... knowing the constraints of a *situation type* which entails objects with specified properties of relations.
Positioning

The kinds of activities, interactions, individual contributions and responses that are entitled, expected, and perhaps obligated in a particular setting.
Questions & Comments
Jorge Vanegas
Texas A&M University
Howdy!

I would like to frame my comments on the design of learning spaces from an architect’s perspective, particularly in response to Wendy’s excellent discussion on affordances, attunement and positioning...
The design of any space begins with:

The Search

Source: “Problem Seeking” by W. Peña and S. Parshall
In turn, **programming requires definition of:**

### Information Index

**Function**
- Mission
- Maximum number
- Individual identity
- Interaction/privacy
- Hierarchy of values
- Prime activities
- Security
- Progression
- Segregation
- Encounters
- Transportation/parking
- Efficiency
- Priority of relationships

**Form**
- Bias on site elements
- Environmental response
- Efficient land use
- Community relations
- Community improvements
- Physical comfort
- Life safety
- Social/psychological environment
- Individuality
- Wayfinding
- Projected image
- Client expectations

**Economy**
- Extent of funds
- Cost effectiveness
- Maximum return
- Return on investment
- Minimizing of operating costs
- Maintenance and operating costs
- Reduction of life cycle costs
- Sustainability

**Time**
- Historic preservation
- Static/dynamic activities
- Change
- Growth
- Occupancy date
- Availability of funds

### Facts
- Statistical data
- Area parameters
- Personnel forecast
- User characteristics
- Community characteristics
- Organizational structure
- Value of potential loss
- Time-motion study
- Traffic analysis
- Behavioral patterns
- Space adequacy
- Type/intensity
- Physically challenged guidelines
- Site analysis
- Soil analysis
- FAR and GAC
- Climate analysis
- Code survey
- Surroundings
- Psychological implications
- Point of reference/entry
- Cost/SF
- Building or layout efficiency
- Equipment costs
- Area per unit
- Cost parameters
- Maximum budget
- Time-use factors
- Market analysis
- Energy source costs
- Activities and climate factors
- Economic data
- LEED rating system
- Significance
- Space parameters
- Activities
- Projections
- Durations
- Escalation factors

### Concepts
- Service grouping
- People grouping
- Activity grouping
- Priority
- Hierarchy
- Security controls
- Sequential flow
- Functional relationships
- Communications
- Enhancements
- Special foundations
- Density
- Environmental controls
- Safety
- Neighbors
- On-premise: fixed, free, group address
- Off-premise: satellite, telecommuting, virtual office
- Orientation
- Accessibility
- Character
- Quality control
- Cost control
- Efficient allocation
- Multifunction/versatility
- Merchandising
- Energy conservation
- Cost reduction
- Recycling
- Budget estimate analysis
- Balance budget
- Cash flow analysis
- Energy budget
- Operating costs
- Green building rating
- Life cycle costs
- Adaptability
- Tolerance
- Convertibility
- Expandability
- Linear/concurrent scheduling
- Escalation factors

### Needs
- Area requirements
- By organization
- By space type
- By time
- By location
- Parking requirements
- Sequential flow
- Functional alternatives
- Unique and important performance requir that will shape build design
- Site development costs
- Environmental influences on costs
- Building cost/SF
- Building overall efficiency factor
- Attitude toward the i budget and its infu the fabric and geon the building
- Time schedule
- Cost/time schedule

**Source:** “Problem Seeking” by W. Peña and S. Parshall
... Within an **iterative process of:**

**Analysis and Synthesis**
More specifically, in the design of Learning Spaces...
... the design process must focus on a full understanding of **Learning Outcomes**:

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DESIGN BACKWARD
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- Intended Learning Outcomes of the Lesson
- Intended Learning Outcomes of the Unit
- Intended Learning Outcomes of the Course
- Intended Learning Outcomes of the Academic Program
- Intended Learning Outcomes of the Institution
... the design process must focus on a full understanding of **Learning Outcomes**: 

**DELIVER FORWARD**

- Intended Learning Outcomes of the Lesson
- Intended Learning Outcomes of the Unit
- Intended Learning Outcomes of the Course
- Intended Learning Outcomes of the Academic Program
- Intended Learning Outcomes of the Institution

Source: http://assessment.uconn.edu/primer/mapping1.html
And in addition, the design process must also focus on incorporating special attributes for Learning Spaces...
Integrating these attributes from the beginning of the process:

The Search

Affordances, Attunement, and Positioning

Analysis and Synthesis
... And also, expressing them in a language that relates to architectural design:

(1) Affordances

Include:
- Ambient information in the environment
- Properties
- Surfaces
- Useful resources for achieving a particular activity and certain functions

Enable:
- Certain kinds of behaviors and activities while precluding others
... And also, expressing them in a language that relates to architectural design:

(2) Attunement

The Design Process

Include:
- Environmental affordances and constraints
- Environmental conditions that evoke antecedent actions, activities, and procedures that can be performed in that space
- Attached meanings to space, based on prior activities that have occurred there
- Permitted and encouraged social and interactional patterns with others and with the artifacts present

Enable:
- What can and will happen in the space
- Following antecedent regularized forms of participation and action found in such a space
Include:

- Entitled, expected, and obligated activities, interactions, individual contributions and responses in a particular setting

The design/structure/furniture helps determine what can be done in that space, what is acceptable, what is allowable, what can happen and what cannot, and what should happen

Enables:

- Certain configurations of use and exploitation while vigorously resisting others.
Now, I would like to provide three institutional perspectives on learning spaces:

✓ From a global university-level perspective;

✓ Through a general college-level perspective;

✓ To a specific course-level perspective...
A Global Institutional Perspective:
Texas A&M University
Classroom Visioning Task Force (CVTF)

Established in 2014 to provide recommendations for future teaching and learning spaces, the CVTF:
(1) addressed the need for additional classroom space on the College Station campus;
(2) anticipated adoption of student-centered pedagogical strategies instead of traditional lectures; and
(3) developed specific recommendations for development of new teaching and learning spaces, renovation and repurposing of existing teaching and learning spaces, and non-structural strategies.
Update of the Campus Master Plan

At the beginning of 2015, Texas A&M University launched a process to update the existing Campus Master Plan, with a specific charge to the Co-Chairs to align the Campus Master Plan with the Strategic Plan for the University, particularly as it relates to the academic mission of the university: (1) learning/teaching; (2) research, creative work, and scholarship; and (3) engagement with practice and through outreach and service.
A General Institutional Perspective: College of Architecture
It’s time to unleash your creative potential

The Texas A&M University College of Architecture is a haven for experimentation, discovering one’s strengths and unleashing the hidden capabilities of the human mind. Here, students embark on a journey of self-discovery. They learn how to unlock their creative potential, become lifelong learners, thought leaders and knowledge creators. Because creativity and the production of knowledge are the currencies of the future…

… It’s time for the College of Architecture  www.arch.tamu.edu
Every space has the potential to be a Learning Space...
From the Conventional...
... Through the Specialized...
... To Everywhere...
A Specific Course Perspective: ENDS 101 – The Design Process
ENDS 101
(Sections 501, 502, 503, & 504)
Fall 2015
The overall learning outcomes for students in this course match the general University Learning Outcomes for all Baccalaureate Graduates:

✓ Master the depth of knowledge required for a degree – the content of this course complements and supplements all degree programs at Texas A&M University;

✓ Demonstrate critical thinking – critical thinking is an integral component of all assignments and special activities in the course, both individual and team, and within and outside the classroom;

✓ Communicate effectively – written, oral, and visual documentation and communication are integral components of all assignments and special activities in the course, both individual and team, and within and outside the classroom;

✓ Practice personal and social responsibility – personal responsibility and accountability, fueled by a spirit and an attitude of self-reliance, are an explicit expectation for all students in the course, and in addition, students are exposed to a lecture, individual and team assignments, and multiple resources on social innovation and entrepreneurship;

✓ Demonstrate social, cultural, and global competence – the course places emphasis on global challenges for creativity and innovation, and on issues of gender, leadership, cultural differences regarding personal space, and provocative problem solving;

✓ Prepare to engage in lifelong learning – the course promotes curiosity, imagination, exploration, self-reliance, discipline, continuous learning, and transcendence beyond their zones of comfort, competency, and interests, as well as the use of multiple tools and technologies; and

✓ Work collaboratively – 40% of the final grade for the course is based on graded team assignments.
Interdisciplinary Teams

✓ Students are assigned to **interdisciplinary teams** composed of six (or five) students

✓ Teams are composed of students from **different majors** (no repeat majors per team)

✓ Teams attempt to balance **gender** (no less than two women per team)

✓ Teams attempt to balance **classification level** (no less than two women per team)

✓ Teams attempt to balance **cultural background** (strive for ethnic and cultural diversity)

✓ Teams attempt to balance **involvement in special activities** (no more than one member of Varsity Sports and one member of the Corps of Cadets per team)
Learning Spaces: Pedagogical Elements

- ENDS 101–The Design Process
  - Individual Assignments
  - Team Assignments
  - Special Assignments
  - In-Class Interactive Exercises
  - In-Class Videos & Other Vignettes

- eCampus ECMS - Management of Communication and Course Content
- eCampus ECMS - Discussion Forums
- eCampus ECMS - Suggested Readings & Other Resources
- Guest Speakers Live and Online Lectures
- Instructor Live and Online Lectures

Learning Spaces: Pedagogical Elements
Learning Spaces: Lectures

ENDS 101—The Design Process

- Developing High Performance Creative Organizations
- Blue Skies and Blue Oceans: A Process for Unleashing the Imagination
- Managing Creativity and Innovation: Strategies, Processes, Tools, Principles, Practices, & Resources
- Intellectual Property
- Production of Knowledge and Creativity
- Personal Space and Creativity
- Communications and Creativity
- Humor and Creativity
- Leadership and Creativity
- The Future of Texas
- Future Trends: Accelerating Technologies & Singularity
- IdeaMÂCHÉ
- A New Paradigm for Higher Education, and Drivers for Imagination, Creativity, Innovation, Design, and Entrepreneurship
- Developing High Performance Creative Teams
- Developing High Performance Creative Individuals through Intuition, Flow, and Creative Thinking
- The Design Process
Learning Spaces: Learning Experiences

- **ideaMÂCHÉ**
- **Active Learning Agreement (ALA), Non-Disclosure Agreement (NDA), and Media Release Form (MRF)**
- **Weekly Review and Reflection of Live and Online Lectures**
- **Personal Branding Profile**
- **Individual Creativity Challenge: Soft Innovations**
- **Self Assessment of Team Performance**
- **Team Branding Profile**
- **Team Creativity Challenge: Soft Innovations**
- **Individual Final Examination Essay**
- **Team Final Examination Slide Presentation/Video**

**ENDS 101—The Design Process**
Questions & Comments
Sarah Goodwin
Rachel Seligman
Skidmore College
Aerial view, Tang Museum
Interior view, Atrium, Tang Museum
Skidmore student looking closely, Kettlewell Print Study Room, Tang Museum
Installation view, 
*The Jewel Thief*, Tang Museum, 2010-11
Installation view,

Installation view with a capella group, Peter Edwards: Specter (Elevator Music series 17), Tang Museum, 2010-11
Performanc
e view,
Playing
Pictures in
Hearing
Pictures,
Tang
Museum,
2012
Artist Terry Adkins and Skidmore students rehearse on Terry’s instrument/sculpture “Akrhaphones” prior to opening of Terry Adkins Recital, Tang Museum, 2012
Downbeat Lounge, Tang Museum, 2012
Idea Lab, in the planned Center for Integrated Sciences, Skidmore College
Questions & Comments

One minute for participant chat questions
Comments from two JMU students

Collier Apgar
Jonathan Martin
James Madison University
Questions & Comments

Time for participant chat questions
Arizona State University ♦ Brigham Young University ♦ Calvert Wright Architecture, PC ♦ Calvin College ♦ Celli-Flynn Brennan ♦ Cuyahoga Community College, Westshore Campus ♦ EYP ♦ Fishbeck, Thompson, Carr & Huber, Inc. ♦ Florida Atlantic University ♦ Georgia Regents University ♦ Guilford College ♦ Hord Coplan Macht ♦ Iowa State University ♦ Lawrence University ♦ Library Space Planning ♦ Loyola University Maryland ♦ Malone University ♦ MIT Libraries ♦ Muhlenberg College ♦ Ohio University Libraries ♦ Rutgers University Libraries ♦ Skidmore College ♦ St. Edward's University ♦ UC San Diego Library ♦ Union College ♦ University of Arizona Libraries ♦ University of Colorado Denver/Auraria Library ♦ University of Illinois at Urbana-Champaign ♦ University of Massachusetts Boston ♦ University of North Carolina at Charlotte ♦ University of Ottawa ♦ University of Rhode Island ♦ University of Washington-Seattle ♦ University of Waterloo ♦ VMDO Architects ♦ Washington and Lee University ♦
Lessons Learned
Learning Spaces Collaboratory

Join the conversation – send us your ideas about questions to ask in shaping learning spaces
pkallsc@pkallsc.org

Upcoming LSC Webinar

- Making the Case: Spaces that Nudge Learners to Become Boundary-crossing Agents in an Increasingly Complex World

December 9, 2015