Learning Spaces Collaboratory Webinar

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

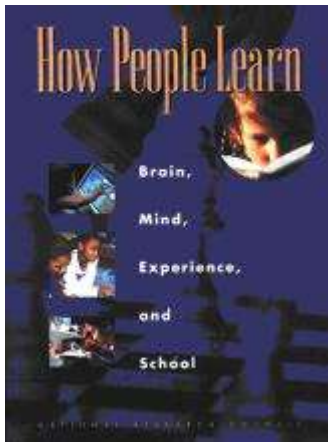
October 20, 2015

http://www.pkallsc.org/

About the LSC – How Learning Happens

Robust learning happens when students are:

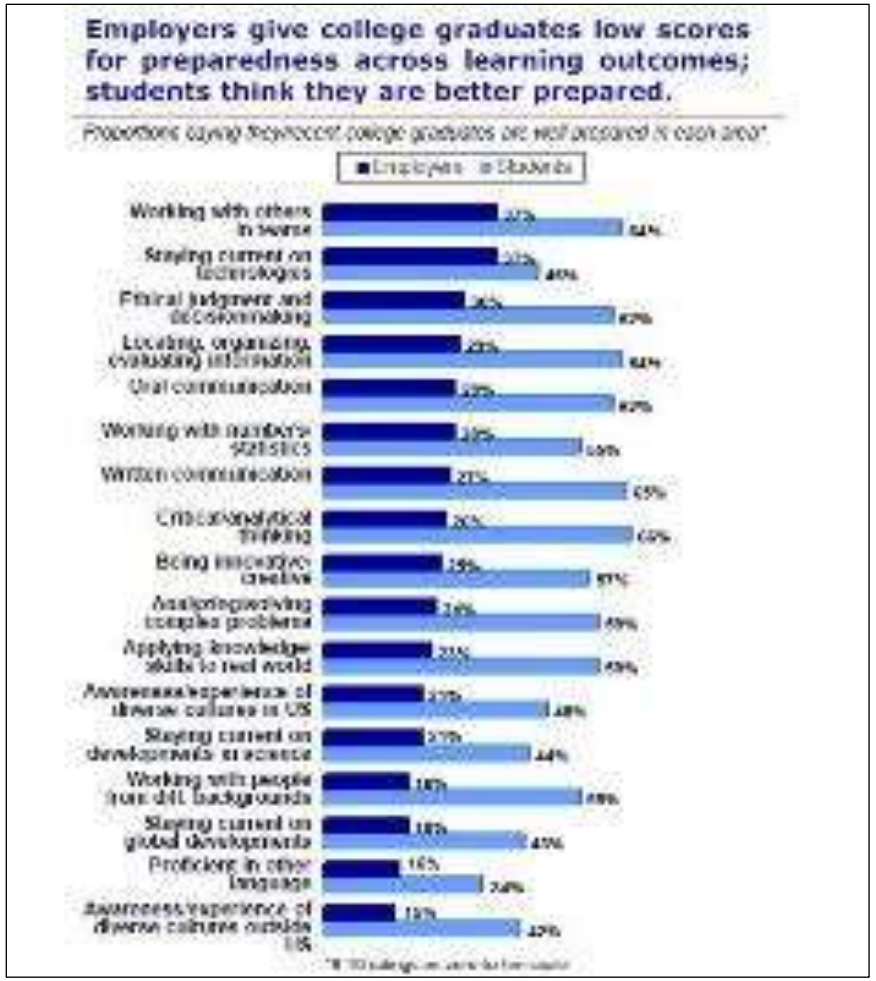
- actively engaged in evaluating, constructing, and re-evaluating their own knowledge
- actively engaged in a social and supportive community
- encouraged to assess, reflect and build on prior knowledge
- empowered to address problems that are meaningful, of importance to them and to the world beyond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



Jeanne L. Narum

Learning Spaces Collaboratory

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.

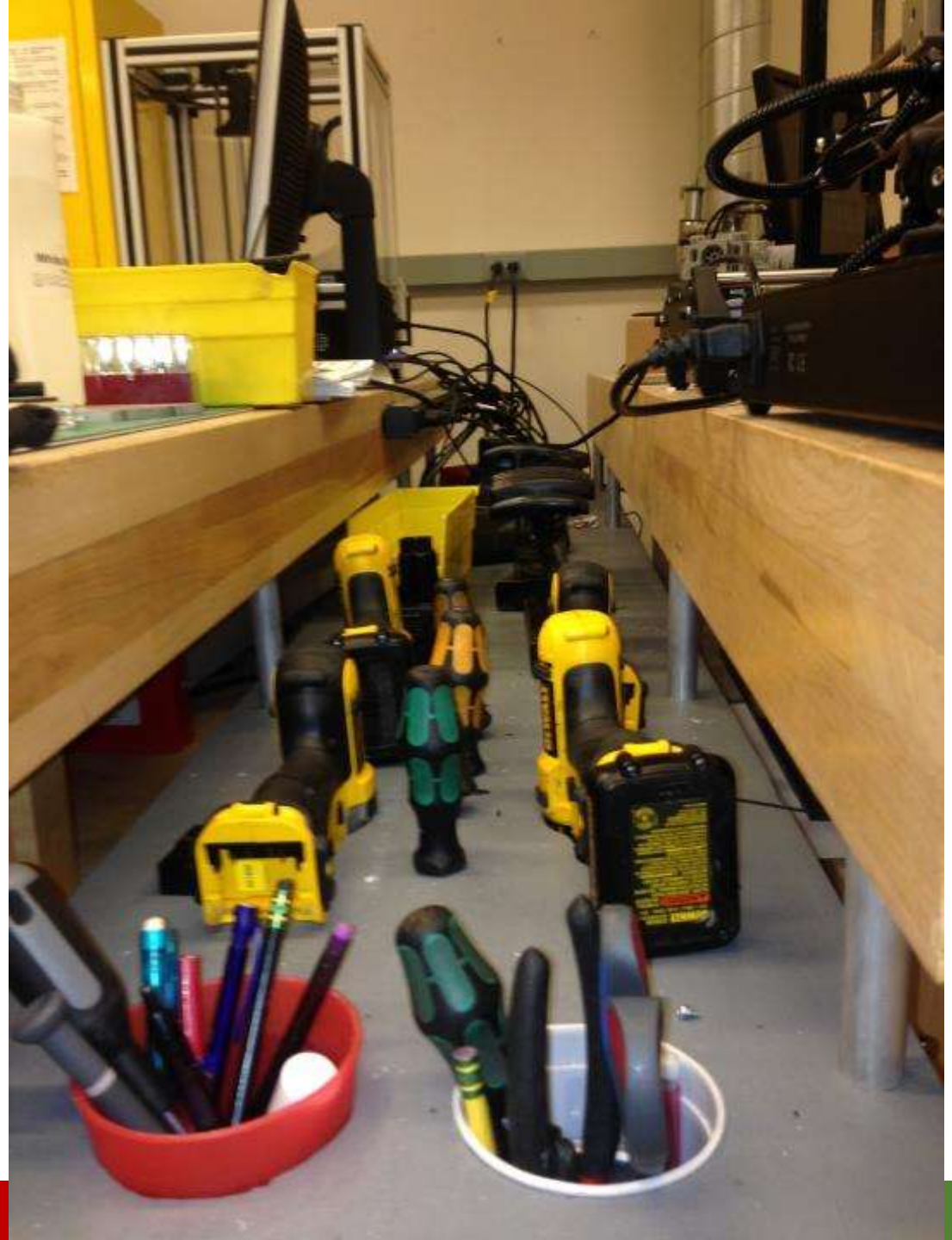
Wendy Newstetter

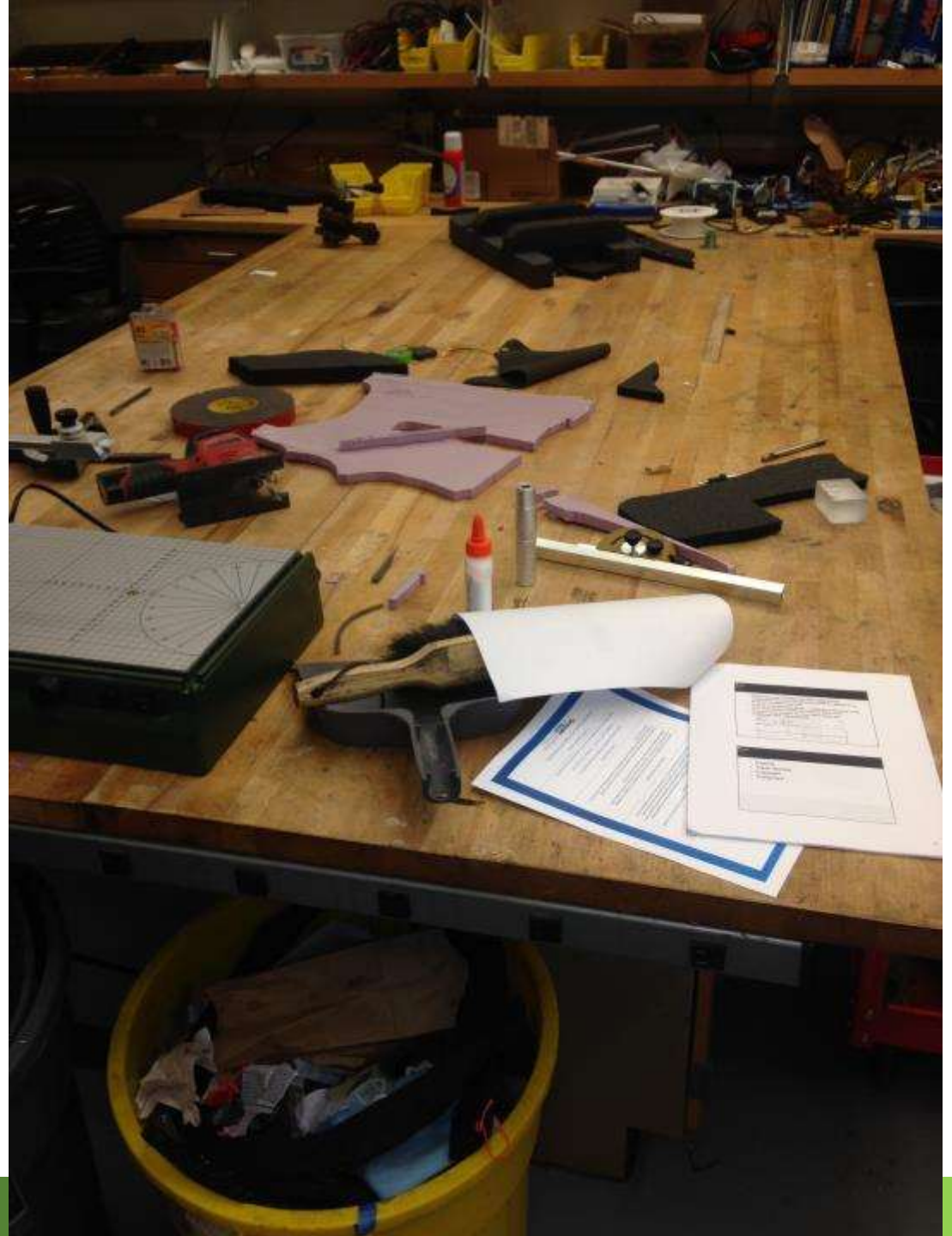
Georgia Tech

Affordance

…….ambient information in the environment:

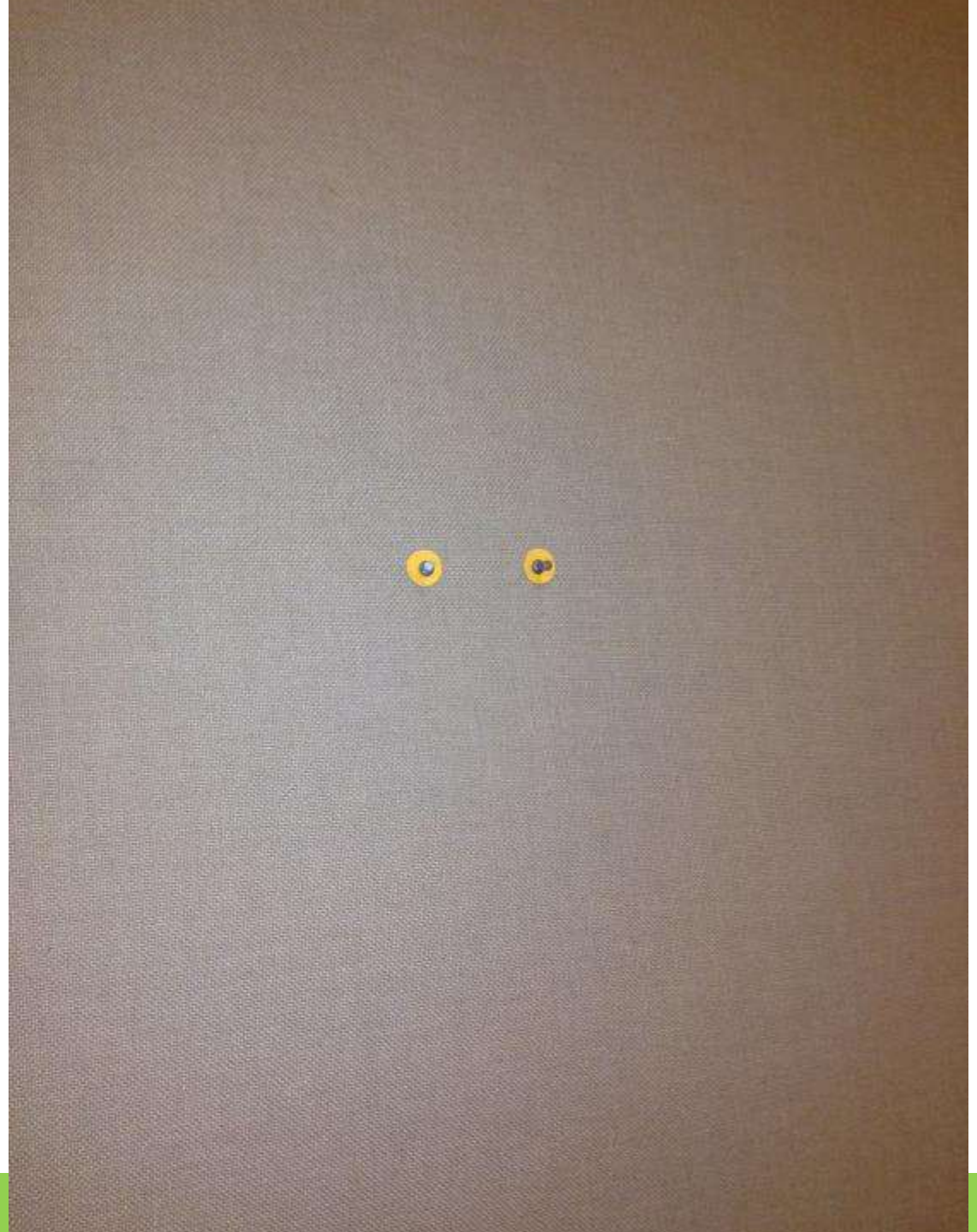
- properties
- surfaces
- resources perceived as useful to achieving a particular activity and to certain functions.





Attunement

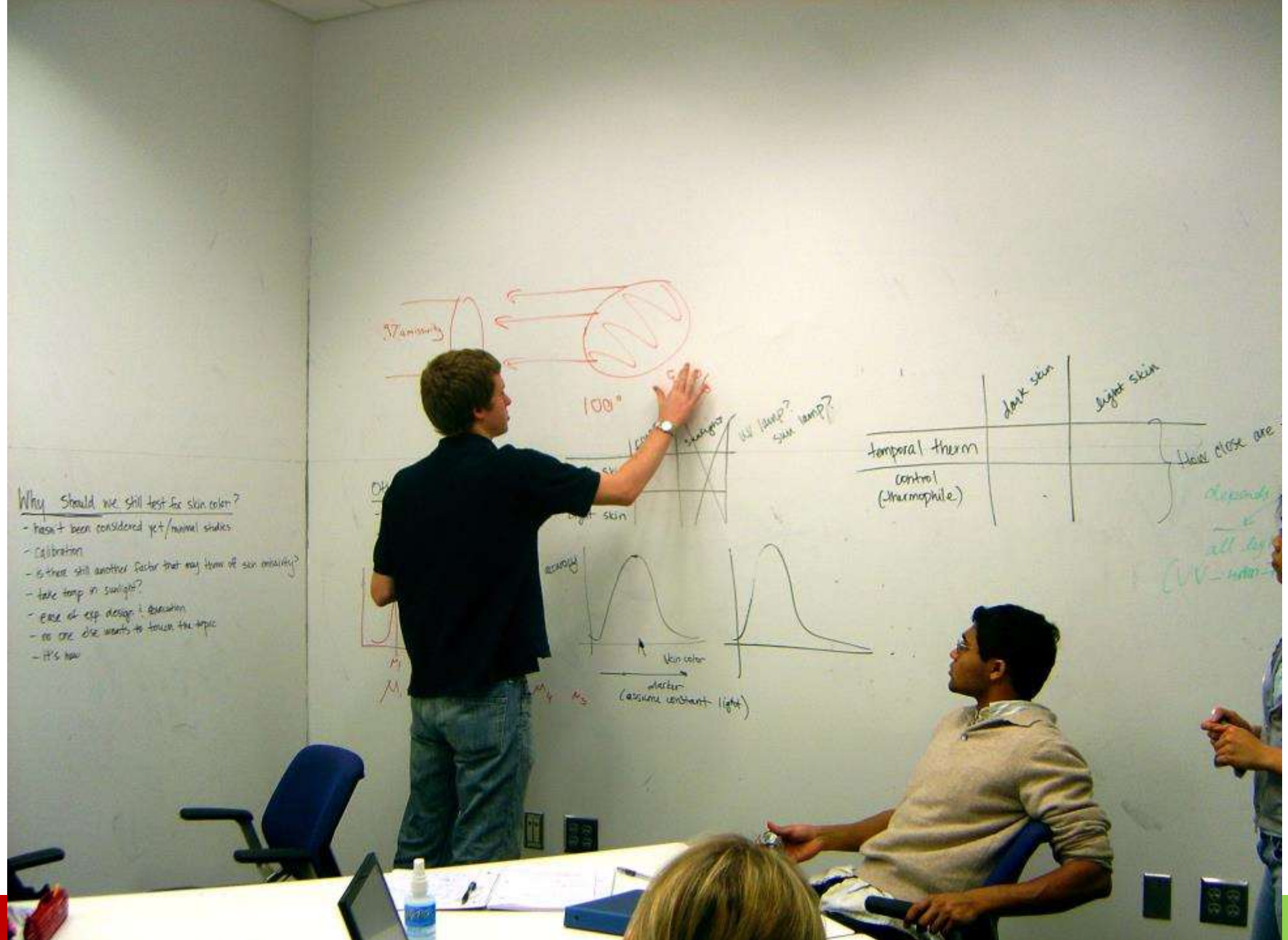
… knowing the constraints of a *situation type* which entails objects with specified properties of relations.



Positioning

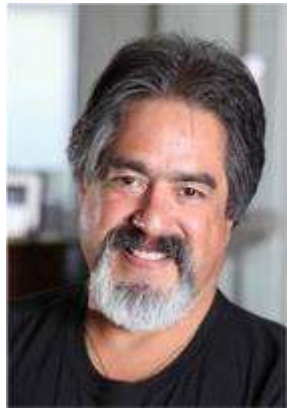
The kinds of activities, interactions, individual contributions and responses that are *entitled*, *expected*, and perhaps *obligated* in a particular setting.

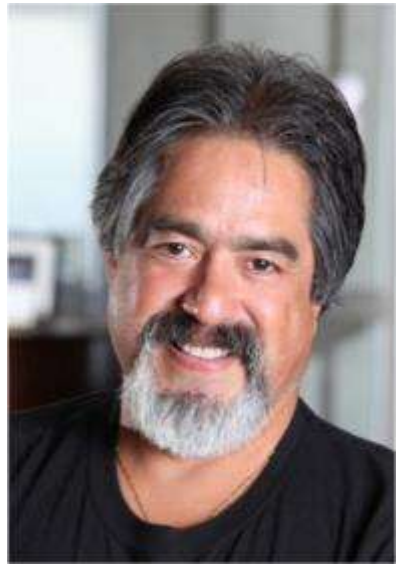

2006/06/02


Why should we still test for skin color?
- hasn't been considered yet/minimal studies
- calibration
- is there still another factor that may turn off skin sensitivity?
- take temp in sunlight?
- ease of exp design & execution
- no one else wants to touch the topic
- it's new
97 degrees
100°
UV lamp?
sun lamp?
light skin
dark skin
temporal therm
control
(thermophile)
How close are
accuracy
skin color
darker
(assume constant light)


* Methods for Motor Coordination
complex reflex
Reciprocal Inhibition
* Flexion Reflex Pathways
Part of locomotor CPG's
* Functional Motor Systems
CPG's
Types of Bursting in CPG's
Pace Maker
How are CPG's controlled
Allows one network structure to produce different behaviors in Different NM conditions

Questions & Comments





Jorge Vanegas

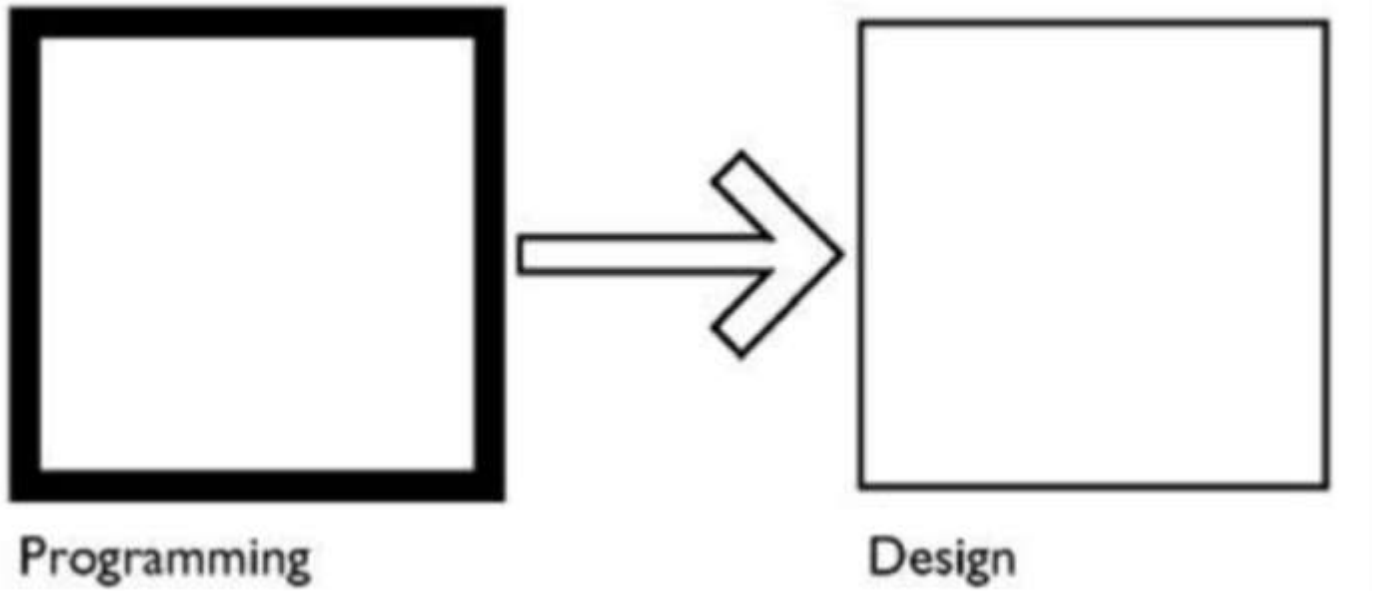
Texas A&M University

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:

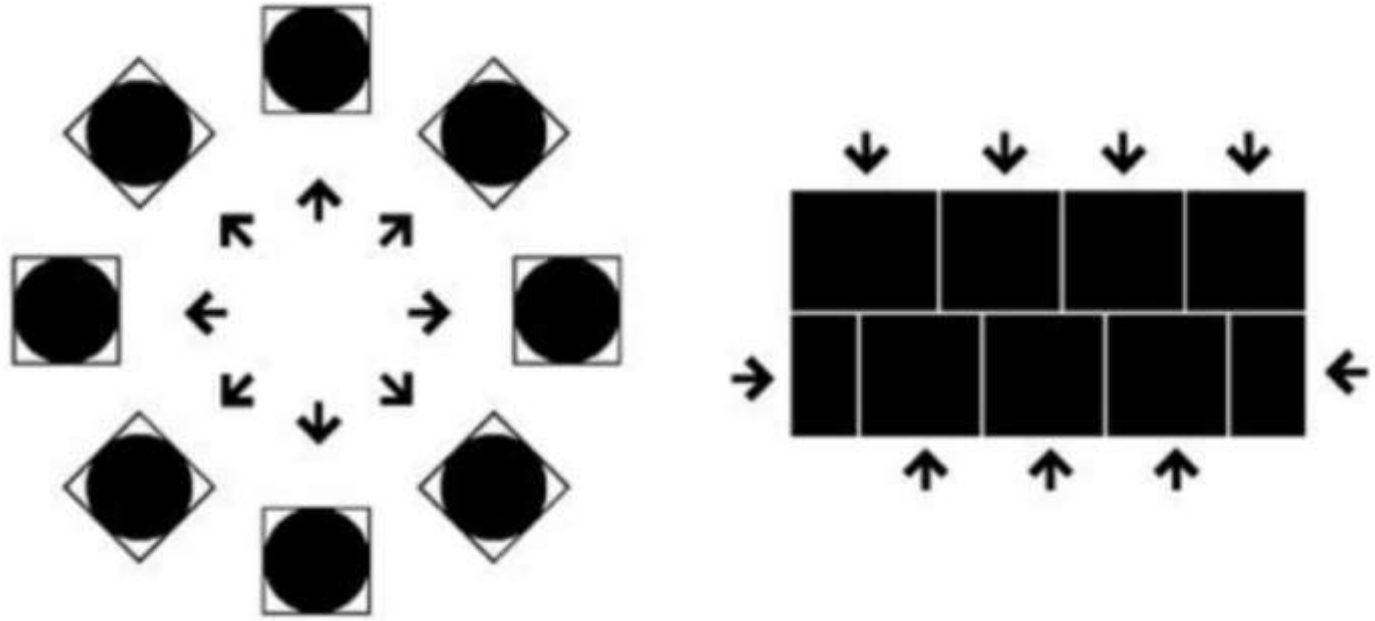
Information Index

	Goals	Facts	Concepts	Needs	Problem
Function People Activities Relationships	Mission Maximum number Individual identity Interaction/privacy Hierarchy of values Prime activities Security Progression Segregation Encounters Transportation/parking Efficiency Priority of relationships	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	Service grouping People grouping Activity grouping Priority Hierarchy Security controls Sequential flow Separated flow Mixed flow Functional relationships Communications	Area requirements By organization By space type By time By location Parking requirements Outdoor space requirements Functional alternatives	Unique and importan performance requir that will shape buil design
Form Site Environment Quality	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	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	Enhancements Special foundations Density Environmental controls Safety Neighbors Home base/officing concepts On-premise: fixed, free, group address Off-premise: satellite, telecommuting, virtual office Orientation Accessibility Character Quality control	Site development costs Environmental influences on costs Building cost/SF Building overall efficiency factor	Major form considera that will affect build design
Economy Initial Budget Operating Costs Life cycle Costs	Extent of funds Cost effectiveness Maximum return Return on investment Minimizing of operating costs Maintenance and operating costs Reduction of life cycle costs Sustainability	Cost parameters Maximum budget Time-use factors Market analysis Energy source costs Activities and climate factors Economic data LEED rating system	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	Attitude toward the budget and its influ the fabric and geom the building
Time Past Present Future	Historic preservation Static/dynamic activities Change Growth Occupancy date Availability of funds	Significance Space parameters Activities Projections Durations Escalation factors	Adaptability Tolerance Convertibility Expansibility Linear/concurrent scheduling Phasing	Escalation Time schedule Time/cost schedule	Implications of chang growth on long-ran performance

Source: “Problem Seeking” by W. Peña and S. Parshall

… Within an iterative process of:

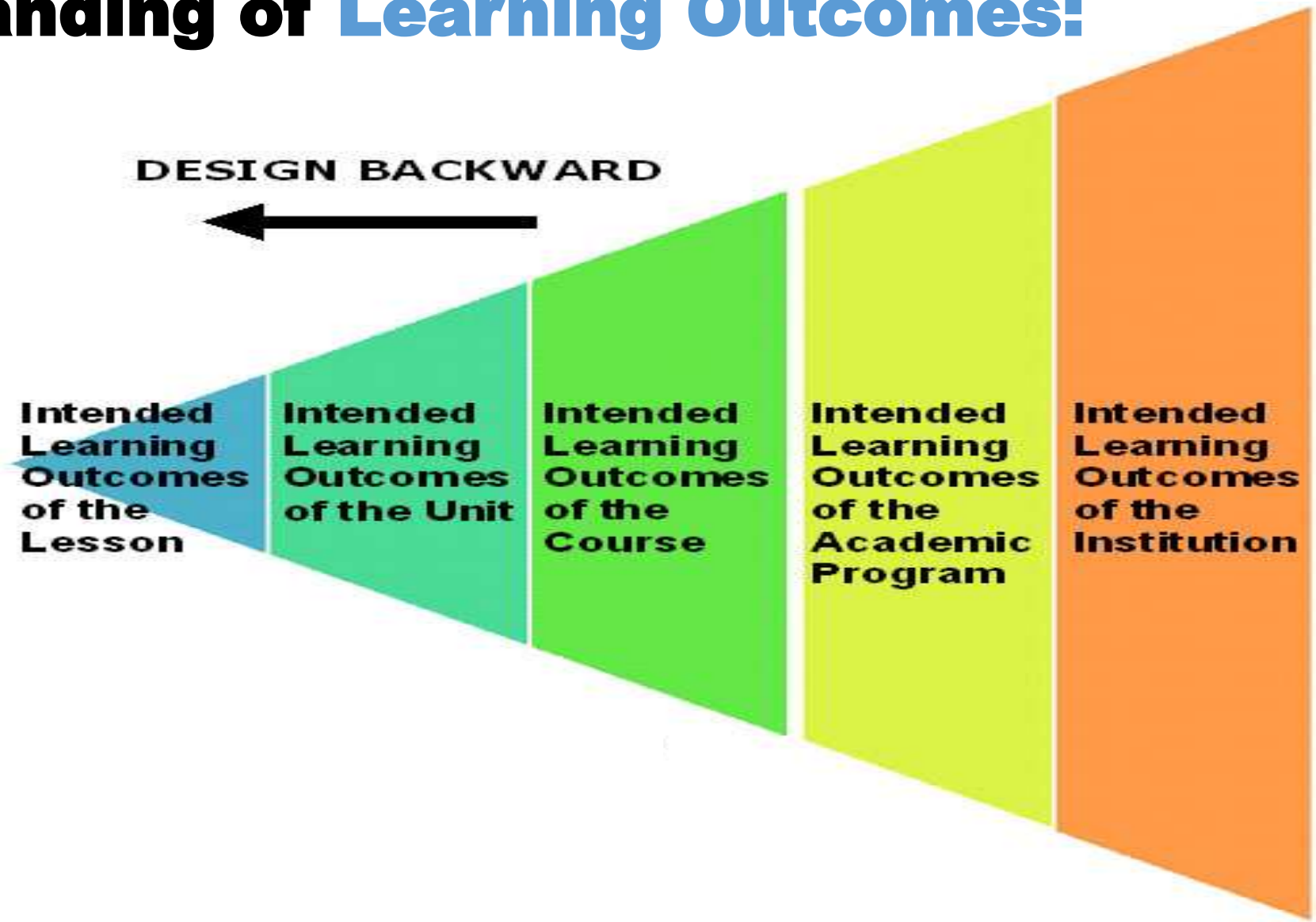
Analysis and Synthesis



Source: “Problem Seeking” by W. Peña and S. Parshall

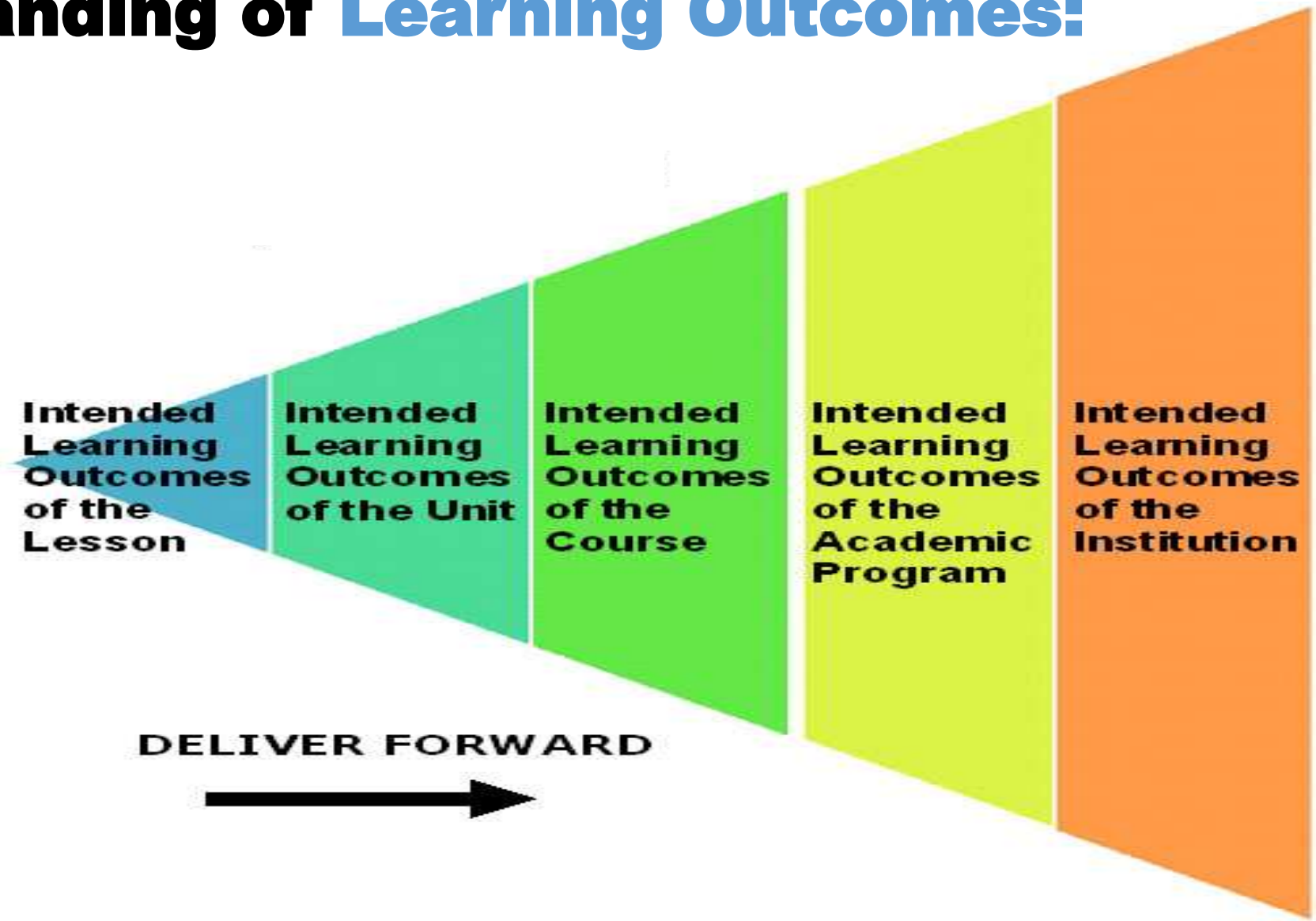
More specifically, in the design of Learning Spaces…

… the design process must focus on a full understanding of Learning Outcomes:



Source: http://assessment.uconn.edu/primer/mapping1.html

… the design process must focus on a full understanding of Learning Outcomes:

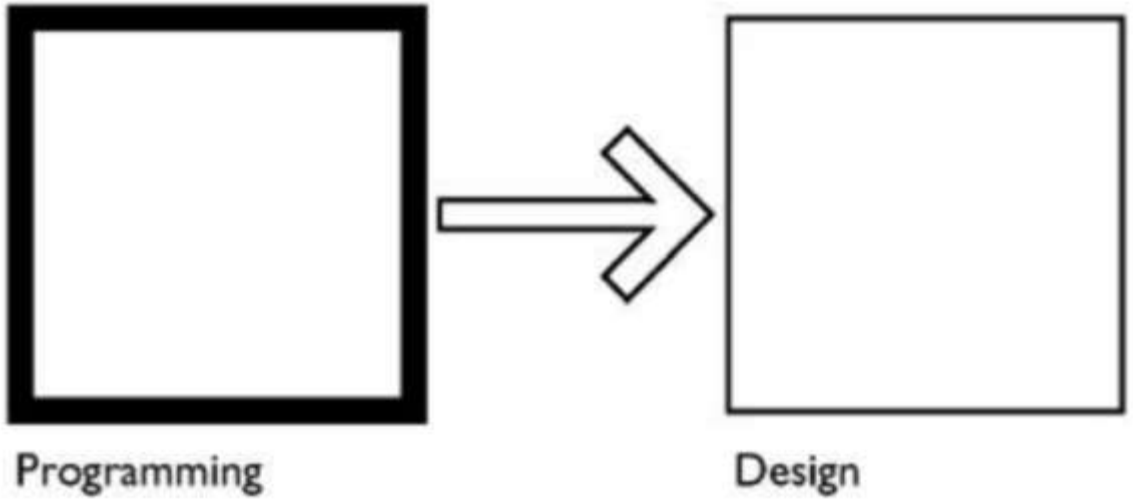


Source: http://assessment.uconn.edu/primer/mapping1.html

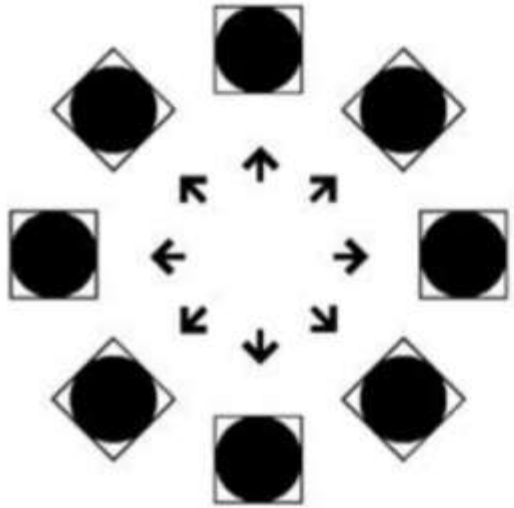
And in addition, the design process must also focus on incorporating special attributes for Learning Spaces…

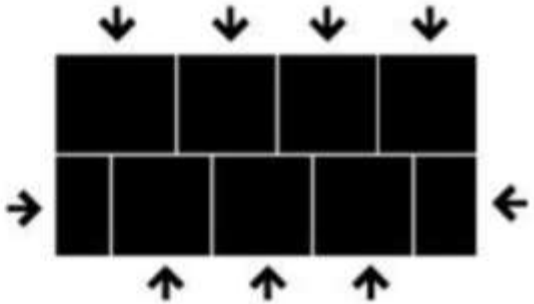
… Integrating these attributes from the beginning of the process:

The Search



Analysis and Synthesis



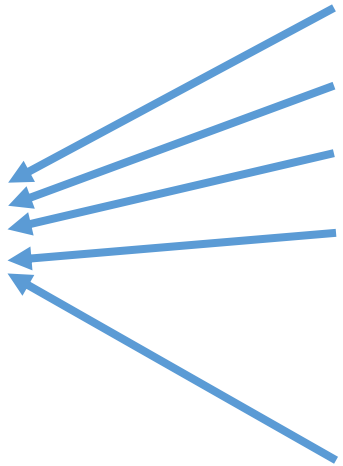


Affordances, Attunement, and Positioning

… And also, expressing them in a language that relates to architectural design:

(1) Affordances

The Design Process



Include:

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

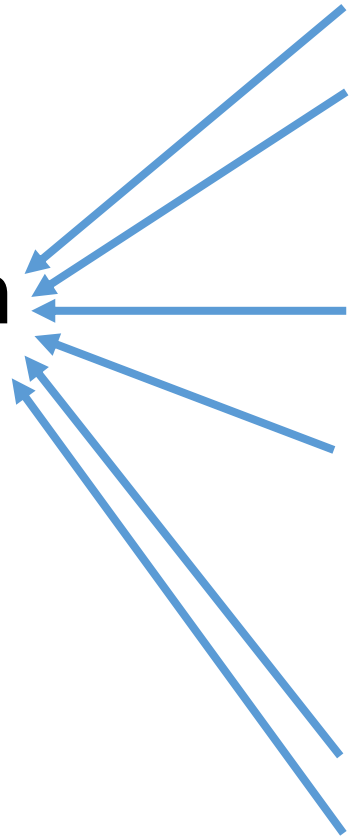
Enable:

- **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

… And also, expressing them in a language that relates to architectural design:

(3) Positioning

The Design Process

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

IT'S TIME FOR

TEXAS A&M UNIVERSITY

Every space has the potential to be a Learning Space...






From the Conventional...

… Through the Specialized…


TEXAS ARCHITECTURE CENTER
SUMMER SOLSTICE
WINTER SOLSTICE


EXIT


KEYS


TEXAS A&M


SawStop

… To Everywhere…


YOUR face because
with


AIAS
AIAS
NEW
NEW
Worship
2007
CLASS OF 20


TAMU
COSC
GROUP 3
Tripod


CARU
msc
msc
msc
msc
CAI


inación
generosidad
cultura
tradición
future
esperanza
faith
truth
perseverance
energía

A Specific Course Perspective:
ENDS 101 – The Design Process


ARCHITECTURE
ENDS 101
(Sections 501, 502, 503, & 504)
Fall 2015

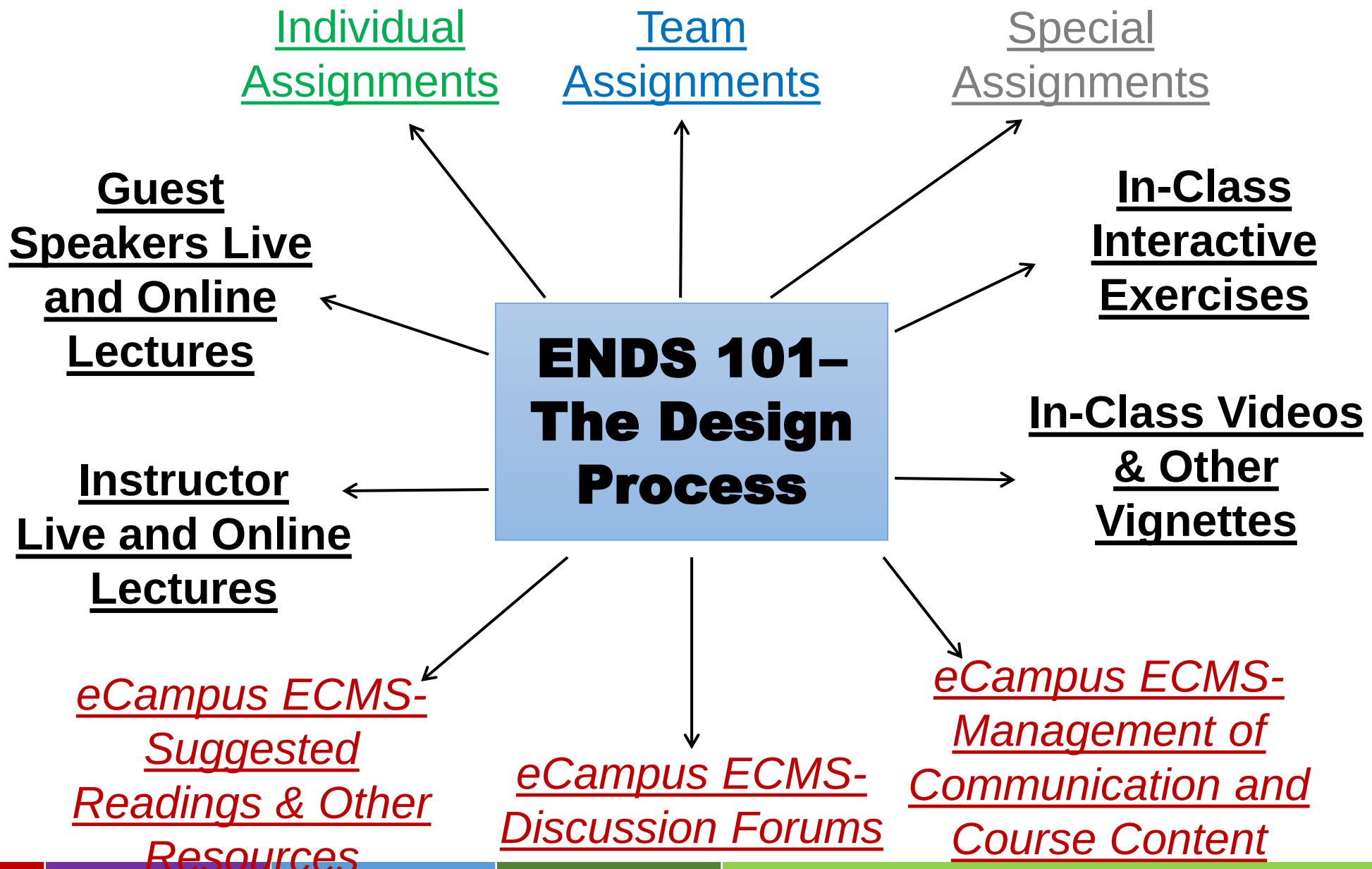
The overall learning outcomes for students in this course match the general University Learning Outcomes for all Baccalaureate Graduates:

- ✓ **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.

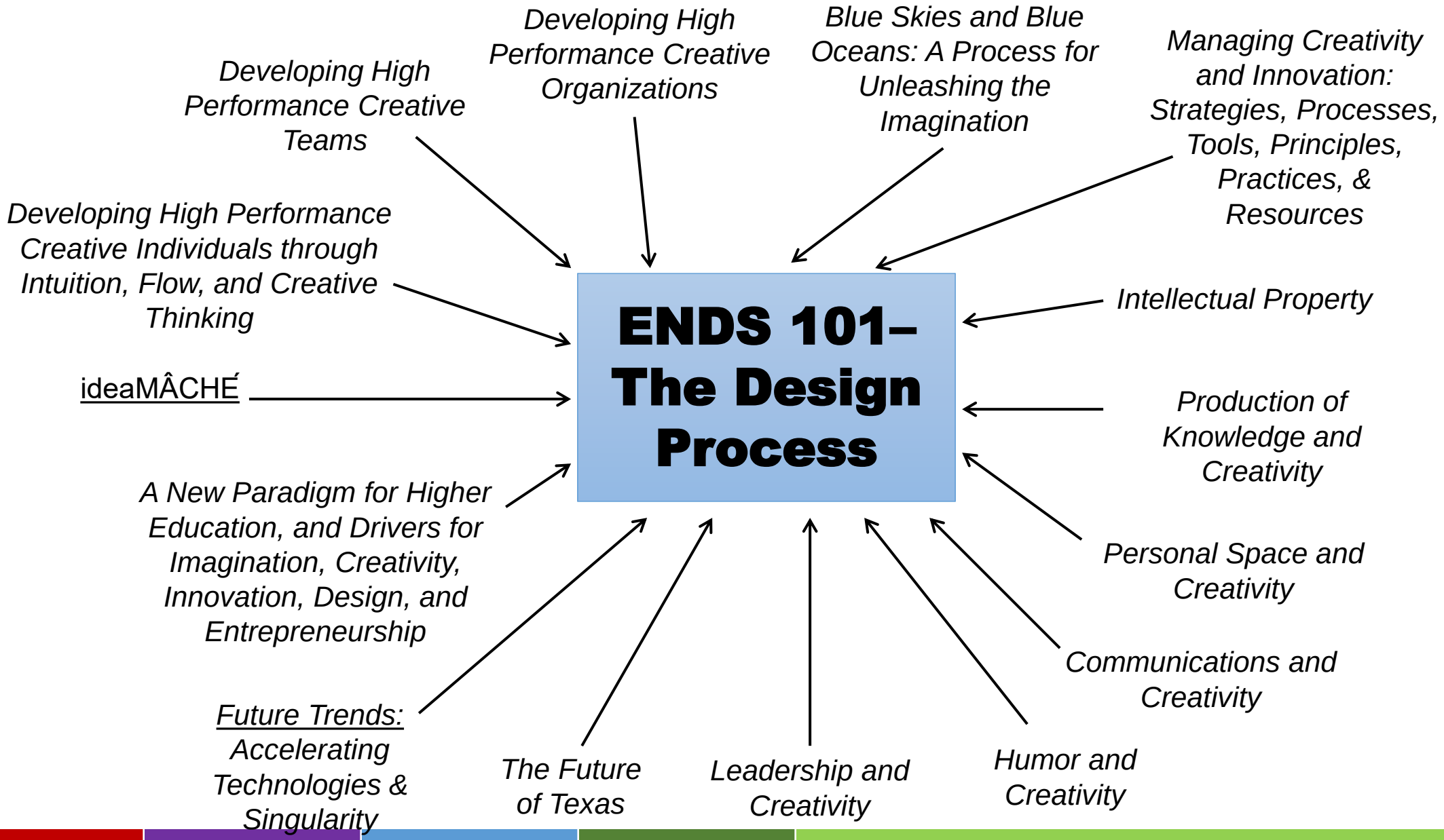
Interdisciplinary Teams

- ✓ 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)

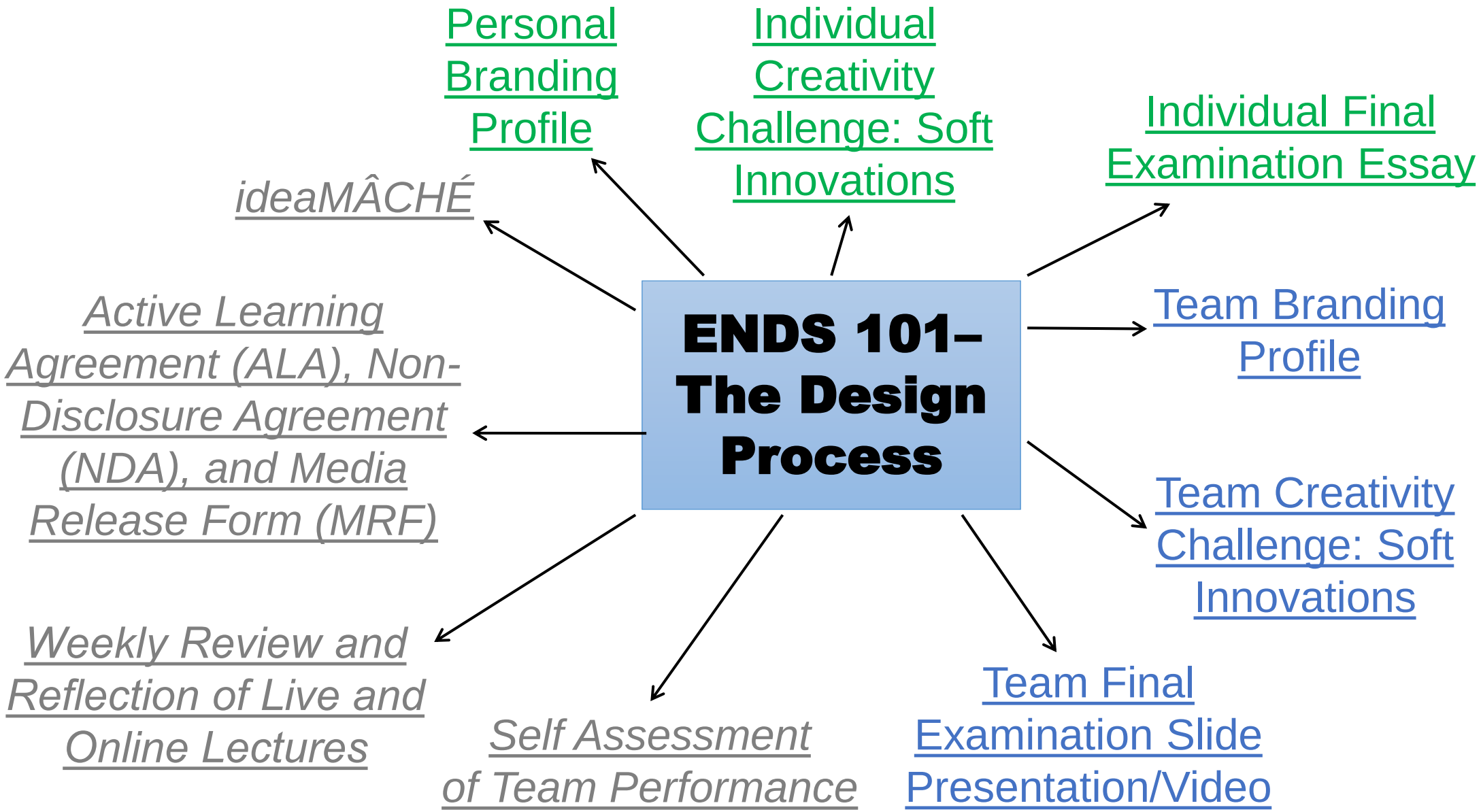
Learning Spaces: Pedagogical Elements



Learning Spaces: Lectures



Learning Spaces: Learning Experiences



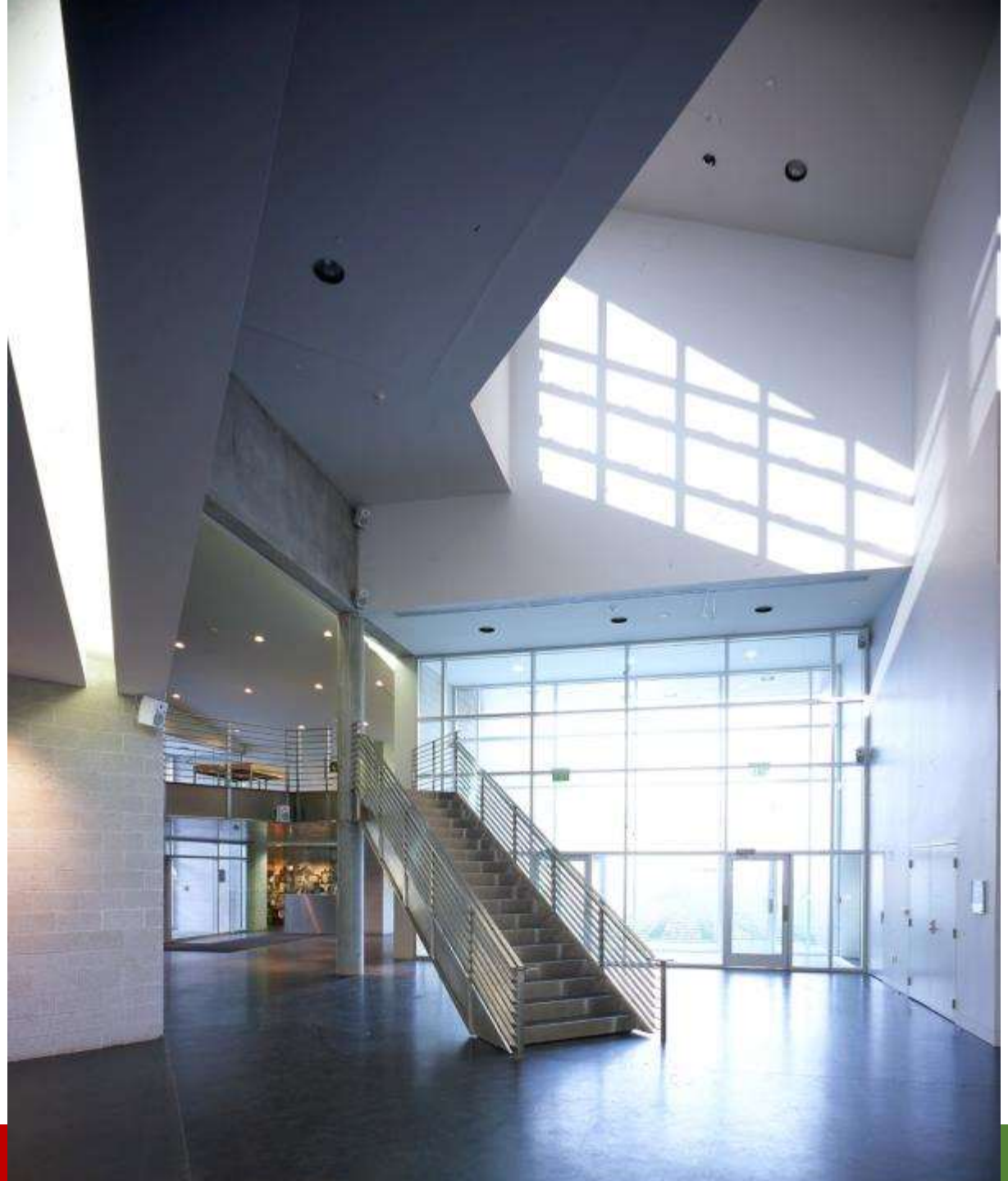
Questions & Comments

Sarah Goodwin

Rachel Seligman

Skidmore College

Aerial view, Tang Museum



Interior view, Atrium,

Tang Museum

Installation view, *Molecules that Matter*, Tang Museum, 2007-8

Skidmore student looking closely, Kettlewell Print Study Room, Tang Museum

Installation view,

The Jewel Thief, Tang Museum, 2010-11

Installation view,

A Very Liquid Heaven, Tang Museum, 2004-5

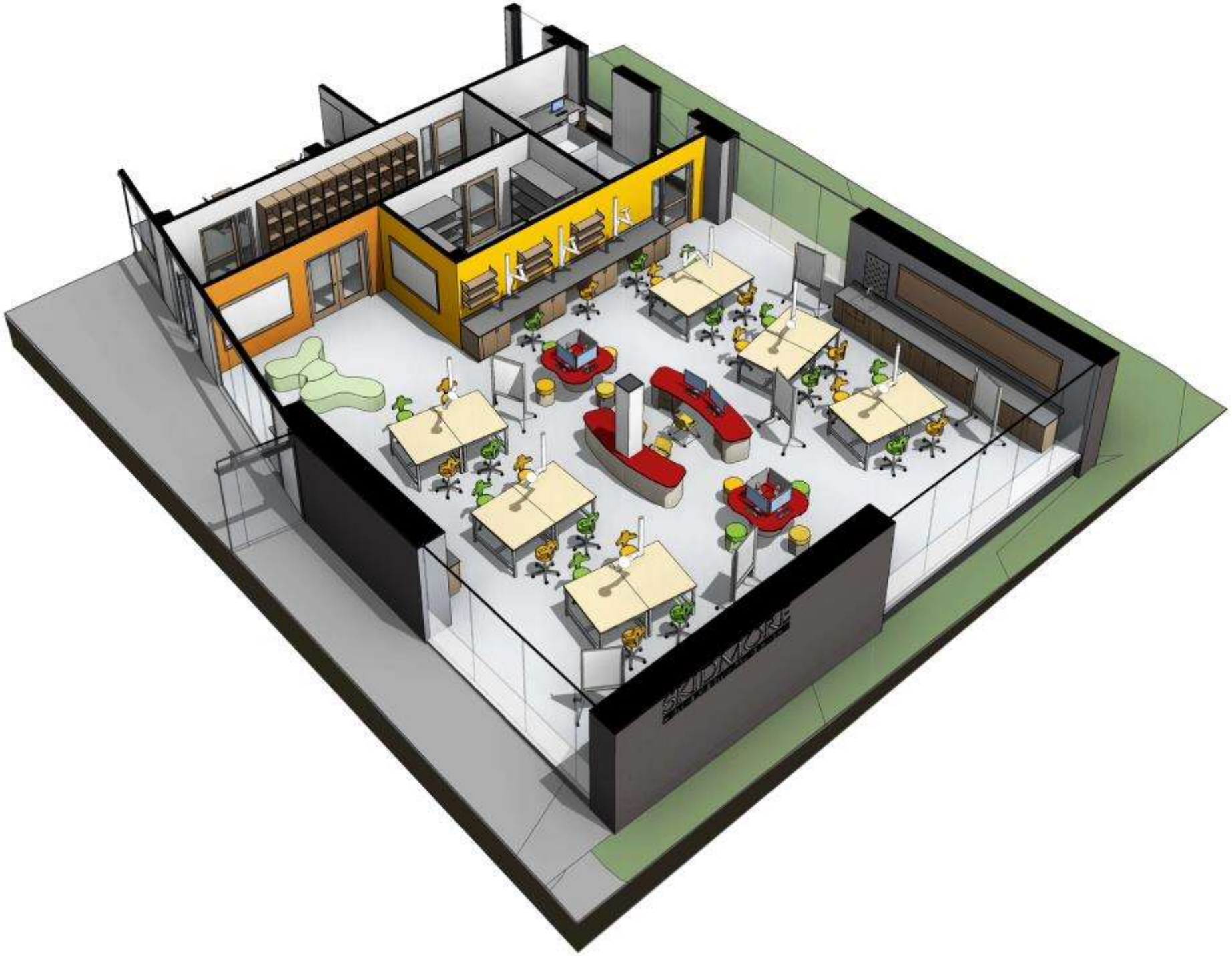
Installation view with a capella group, *Peter Edwards: Specter* (Elevator Music series 17), Tang Museum, 2010-11

Performance view, *Knitting Nation* by Liz Collins in *Dance/Draw*, Tang Museum, 2012

Performance 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

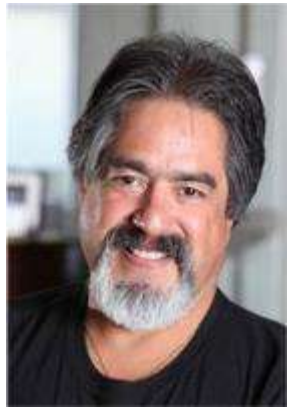
Downbeat Lounge, Tang Museum, 2012



Idea Lab, in the planned Center for Integrated Sciences, Skidmore College

Installation and performance views, *Machine Project – The Platinum Collection (Live by Special Request)*, Tang Museum, 2015

Questions & Comments



One minute for participant chat questions

Robert Kolvoord

George Sparks

James Madison University


WOOD
ONLY


JMU


LENA
EXIT


TENNSMITH


BRONX BREWERY


ACE


BAND AID


Activity: Sketching

Comments from two JMU students

Collier Apgar

Jonathan Martin

James Madison University

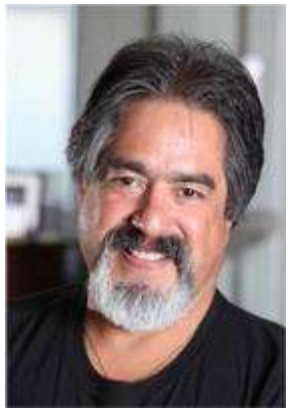
Questions & Comments

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







Upcoming LSC Webinar

Learning Spaces Collaboratory

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

pkallsc@pkallsc.org

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

December 9, 2015