Research into Action: Re-envisioning Library Spaces

Presented by
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• Introductions
• Interactive Activity
• Brief Review of Library Study / Project Purpose
  • Collaboration with Interior Design School
  • Research Findings Informing Design Solutions
• Understanding the Role of Interior Design Schools
• Highlights from Student Design Solutions
• Benefits of Library – Design School Collaborations
How do library spaces facilitate creative thinking, innovative research, and problem-solving?

**SPATIAL ANALYSIS**
- 8 Observations per floor, 30 min each, Jan 2020
- Public/communal spaces
- Private/enclosed spaces
- Individual/Group, In a group but working individually
- Identify occupancy/capacity utilization & spaces used

**ONLINE SURVEY**
- 52k student emails
- 608 responses/337 in sample
  - Undergrad – 82%
  - Graduate – 17%
  - Other – >1%
- Topics:
  - Frequency of use based on task
  - Duration of use
  - Ranking of Current vs. Ideal version of space

**FOCUS GROUPS**
- Three participant groups: undergraduate, graduate, & library workers
- 2 sessions each for students; 1 staff session
- Questions based on:
  - Ideal spaces for group/individual work
  - What does support for student success look like?
Observational Findings

The spatial analysis revealed patterns in how Marston Library is designed, including but not limited to its occupancy counts, number of students studying, and what spaces they are using.
Survey & Focus Group Findings

- Tables that allow spreading out study materials
- Replace damaged furniture
- Offer a variety of seating; standing desks, exercise seats, sleep pods
- Increase white boards and offer erasers/markers on each floor
- Increase dinner table/banquet seating
- Allow for individual choice and control with seating, lighting, privacy, etc.,
- Provide stimulating, but not overly arousing space
- Offer a central/easily accessible social space
- Increase sight lines to restrooms on each floor
- Increase connection with nature including plants and natural lighting
GENERAL RECOMMENDATIONS

Create a Sense of Place

Solve for Collaboration, by Addressing the Individual

Palette of Posture

Biophilic Connections

Choice and Control for I and WE spaces with varying degrees of privacy
What do Interior Design Schools do?
Not this!
What do Interior Design Schools do?

- Student learn to develop human-centered design solutions across numerous commercial markets:
  - Healthcare
  - Corporate Office
  - Education
  - Retail
  - Hospitality
Interior design is a distinct profession with specialized knowledge applied to the planning and design of interior environments that promote health, safety, and welfare while supporting and enhancing the human experience.

Founded upon design and human behavior theories and research, interior designers apply evidence-based methodologies to identify, analyze, and synthesize information in generating holistic, technical, creative, and contextually-appropriate design solutions.

—National Council for Interior Design Qualification
Human-Centered Design

- Empathize
- Define
- Ideate
- Prototype
- Test
- Implement

Understand
Explore
Materialize
Studio Learning Model

- 50% Team-based, 50% Individual
- Real-world design problems with real-world stakeholders
Studio Learning Model

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• Real-world design problems with real-world stakeholders
Why Real-world Stakeholders?

- Problem-based learning approach.
- To immerse students in emerging trends and paradigm shifts that alter the way people live, work, and engage.
- Design is not one-size fits all.
Junior studio focused on Learning Environments

Education
- Classrooms
- In-Between Learning Zones
- Libraries
Let’s observe. What issues and barriers do you see here?
Have our classrooms really changed?
Have our classrooms really changed?

14th Century Classroom

Today’s Typical Classroom
14th Century Classroom  
Today's Typical Classroom  
Many Online Courses

- Content Approach to Learning
- Faculty viewed as the primary source of information/knowledge
- Often a one-way transmission of content
- Creates a hierarchy of knowledge-giver to knowledge-receiver
- Can lead to passive engagement of students
Content Approach

Interaction Approach
What Shifted?
Why learning spaces must be different today.
Shifts in who has the information
Faculty are no longer the sole gatekeepers of knowledge
Shifts in how students access and process information
**Shifts:** Need to teach for Agility, Adaptability, and Resilience

"Fail early, fail often, but always fail forward."

- John C. Maxwell

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**GROWTH MINDSET**

- Failure is an opportunity to grow
- "I can learn to do anything I want"
- "Challenges help me to grow"
- "My effort and attitude determine my abilities"
- "Feedback is constructive"
- "I am inspired by the success of others"
- "I like to try new things"

**FIXED MINDSET**

- Failure is the limit of my abilities
- "I'm either good at it or I'm not"
- "My abilities are unchanging"
- "I don't like to be challenged"
- "I can either do it or I can't"
- "My potential is predetermined"
- "When I'm frustrated, I give up"
- "Feedback and criticism are personal"
- "I stick to what I know"
Learn about the World

Learn about Myself in the World

Learn about Myself

Objective Pedagogy

Wholistic Pedagogy

Developmental Pedagogy
Designing for **ACTIVE LEARNING**

The Role of Interior Design
Active Learning Classroom

- No front of class (removed teaching stage to reduce hierarchy)
- Students sit face to face in teams (encourages dialogue & relationship building)
- Personal devices can quickly be shared at team and classroom levels
- Equal ownership and control of all classroom resources
- Chairs on wheels (students free to move around)
Content Classrooms

- One-way transmission of knowledge
- Student may become passive receptors of information
- Hierarchical separation between faculty and student
- Students fixed in unmovable seats.
- Classroom technology "owned" by teacher

Active Learning Classrooms

- Environments that facilitate the co-creation of knowledge
- Facilitates active problem solving
- Break down hierarchy between faculty and student
- Students free to move and collaborate
- Technology becomes a shared classroom resource.
The Role of Interior Design

- Identify and remove barriers to human performance.
- Promotes well-being while enhancing the human experience.
- Provides context for culture building.
Junior Design Studio with

Marston Science Library

• University Libraries Offer a Central Hub for Student Work and Collaboration

• Libraries Are Evolving into “Third Spaces”

• Flexible Work Environments Prepare Students for Careers

• Libraries Connect Students to Resources (Physical, Digital, Human, and Inhabitable)
The 100k sq foot building has 5 floors, ~2 mil patrons/year

About Marston Science Library

ENTRY

1. Two Computer Labs, VR Space, Classroom, 24 Study Rooms, Collaboration
2. Service Desk, Makery, Computers, Collaboration
3. Journals, Classroom, Collaboration
4. Books, Silent Study
5. Silent Study

Noise
Marston Science Library Project

• Interior Design Students asked to Redesign the Entry Level and 5th Floor.

• Students worked in 5 teams of 4

• Project Kick-off with Stakeholders
  • History and pressing issues of Marston discussed
  • Overview of research study and findings presented.
  • Students given a summary of research findings as a bulleted list of design drivers
  • Also provided with copies of focus group and survey transcripts.
  • Walkthrough tour of building conducted

• 4 weeks to complete.

• Daily In-class feedback from instructors.

• Presentation back to stakeholder group
Student Team Solution: Main Level
Not enough individual seating
Wayfinding within each floor
Special Collections do not stand out
No indication of being in a science library other than the name
No distinct space for hosting events
Lack of active learning spaces
ACTIVE LEARNING SPACES

ADAPTABLE

FLEXIBLE

ENGAGING

Steelcase Verb
Active Media Table
Rectangular

Steelcase Verb
Trapezoid Post Leg
Table

Steelcase Node 480
Series Trip Castor

ACTIVE LEARNING CLASSROOM
Student Team Solution: 5th Floor
DESIGN GOALS

Marston Science Library
444 Newell Dr, Gainesville, FL 32611
“Serves the University and the scientific community by providing collections in agriculture; biological sciences; chemical & physical sciences; engineering; and mathematics & statistics.”

Main Floor
● Entrance identity: highlight science
● Support the change from passive learning to active learning
● Increase technology
● Varied seating: social and private
● Flexibility for larger events, such as hackathons

5th Floor
● Stimulating but not distracting
● ⅓ collaboration space, ⅔ private space
● Varied private study spaces
● Flexible, creative and uncrowded
Child-Like Curiosity

- Provoking curiosity with an insatiable appetite for knowledge
- Rekindling creation with humility
- Marrying the playful and serious sides of science
- Color Palette is a nod to the 1980’s, when Marston was built
Resource Center
Lockers & Study Tables
Varied Private Seating
Lounge
Booth Seating
Egg Seating
Individual Silent Study

Recessed Linear Lights
Linear Pendant Lights
Acoustical Ceiling Tile
Armstrong Suspended Acoustical Ceiling
Armstrong Soundwaves Ceiling
RBW Small Box Pendant
COMMUNAL SILENT STUDY FROM STAIR ENTRANCE

LOCKERS & RESOURCE CENTER ELEVATION

Steelcase Stool  Steelcase Turnstone  Built In Lockers  Process Sketch
VARIED INDIVIDUAL SILENT STUDY
VARIED INDIVIDUAL BOOTH SEATING
GENERAL RECOMMENDATIONS

- Create a Sense of Place
- Solve for Collaboration, by Addressing the Individual
- Palette of Posture
- Biophilic Connections
- Choice and Control for I and WE spaces with varying degrees of privacy
Sense of Place
Create a Sense of Place

- To make cultural context tangible
- Set social expectations
Create a Sense of Place

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Create a Sense of Place

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Create a Sense of Place

- To make cultural context tangible
- Set social expectations
Solve for collaboration by addressing the individual
Solve for collaboration by addressing the individual

Maxed Out by Group
12 people (3 territories of 4 people)

Maxed Out by Individuals
3 people (1 per territory)
Addressing the Individual
Solve for collaboration by addressing the individual

3 individual territories

16 individual territories
(similar square footage)
Addressing the Individual
Addressing the Individual
Palette of Posture
Palette of Posture
Palette of Posture
Palette of Posture
Walk-Stations

Palette of Posture
Biophillic Connection to Nature
Biophilic Connection to Nature
Biophillic Connection to Nature
Ecosystem of Choice and Control
PUBLIC / SHARED

I/SHARED
Touchdown Spaces
Enclaves

WE/SHARED
Training Rooms
Café Spaces
Collaborative Spaces

PRIVATE / OWNED

I/OWNED
Resident Workstations
Private Offices

WE/OWNED
Project Team Spaces
Shared Project Spaces

-from Steelcase
Ecosystem of Choice and Control
Ecosystem of Choice and Control
Ecosystem of Choice and Control
Ecosystem of Choice and Control
Ecosystem of Choice and Control
Library - Interior Design Collaboration Benefits

**Library Side**

- **Wholistic Approach**: Exposure and application of an ecological framework for analyzing library space.
- **Visualization**: Translation of research findings into a cohesive space solution. Balanced questioning of what “Should Be” with “What Could Be”
- **Challenging Assumptions**: Certain assumptions about end-users were challenged by the process.
- **Participatory Design Process**: End-User Groups participated in the design

**Design School Side**

- **Rich Real-World Problem**: Provides a rich real-world scenario driven by a shifting paradigm. Research Informed Design Process
- **Multiple Stakeholder Feedback**: Provides an iterative feedback loop on the success of student.
- **In-Between Learning Spaces**: Provides an extended context for considering the role of active learning environments in higher education. Ex: Formal classroom learning versus in-between learning.
Questions???

About this project?

About your spaces?

About anything?
ARL Workshop 3
Wednesday, May 4, 10:30-12
Inside the Research Process: Survey Analysis, Creativity Index, & Overall Findings

Come to the grand finale!
Thank you!