

## Designing a Space to Drive Innovation

November 8, 9:30 to 10:30 AM



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Other Project Partners: Sonja Bickford, Miranda Christophersen, Dave Bublitz, TVA Architects





How do educators prepare students to work in the innovative, dynamic, and evolving 21<sup>st</sup> century work environments when most of our classes are held in traditional front-facing classrooms designed for 20<sup>th</sup> century learning?





# Background Design & Build Research Key Outcomes





#### **About**

#### **Session Objectives**

- **1. Explain** the design process and features that were used in creating the entrepreneurial center.
- **2.** <u>Understand</u> how this center supports an innovative mindset and learning for students.
- **3. Apply** active learning and design thinking practices when teaching in modern classroom.
- **4.** <u>Design</u> an entrepreneurial learning space that supports innovation and prepares students for a modern workplace.





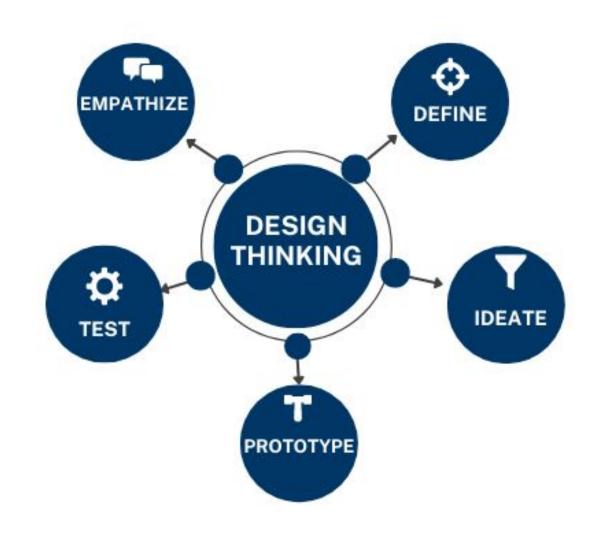
#### Background

#### **Pedagogy & Learning Spaces**

#### **Active Learning Space Design/Research**

#### **Innovation Pedagogy**

- Idea Generation, Protoyping, Feedback Loops
- i.e. Standford's Design Thinking
- Increased Collaboration
- Employers are seeking these skills







Design | Designing & Building an Entrepreneurial Center

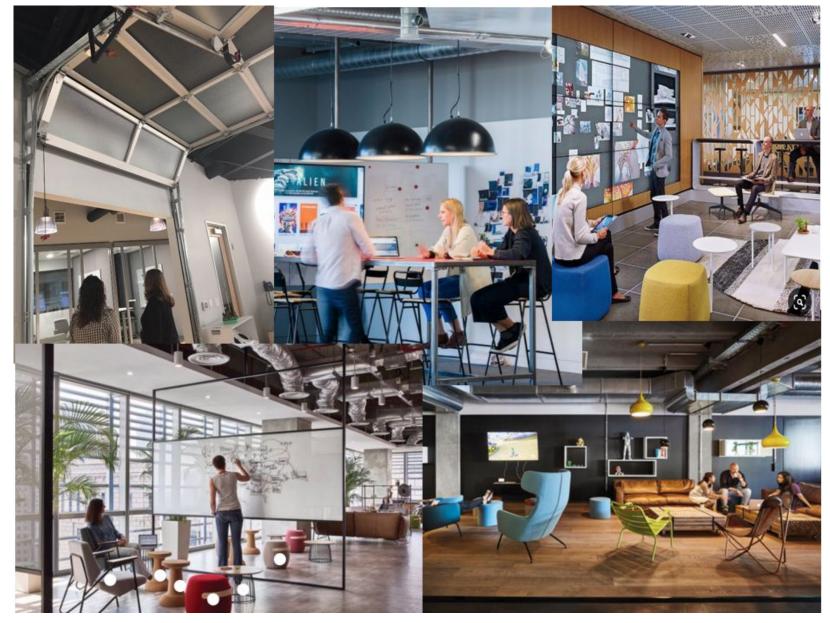




#### Design

#### Inspiration

- Modern Offices Spaces
- Collaboration Spaces
- Standford's D School







#### Design

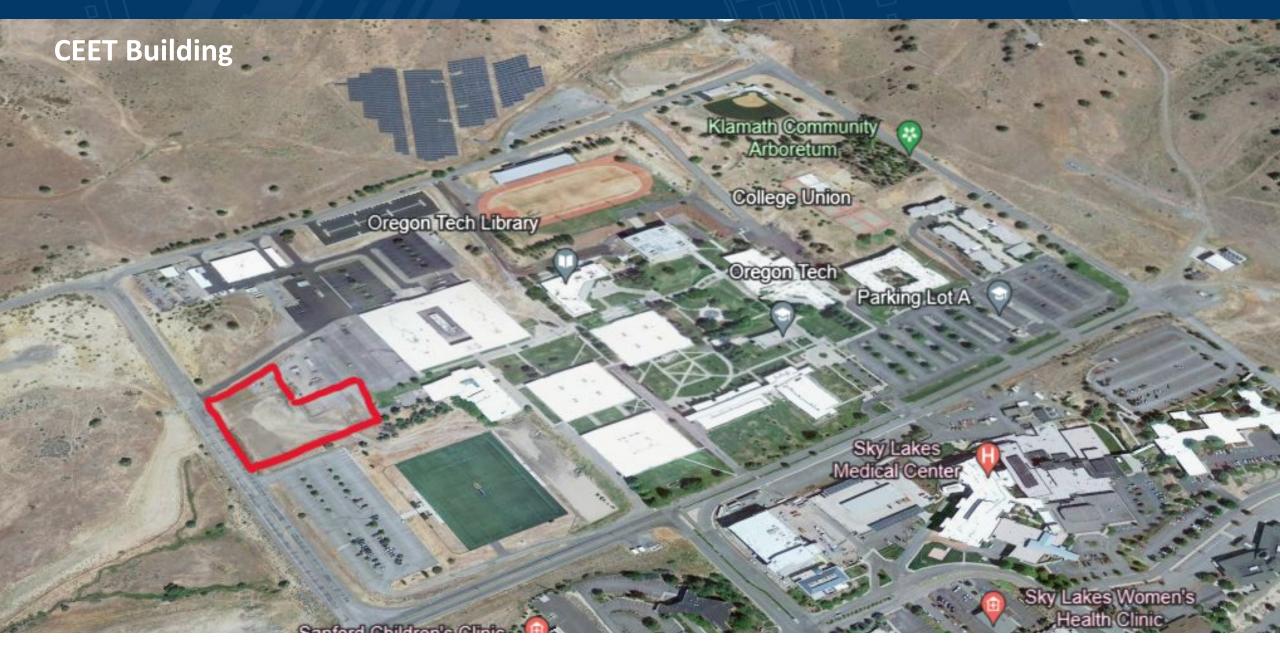
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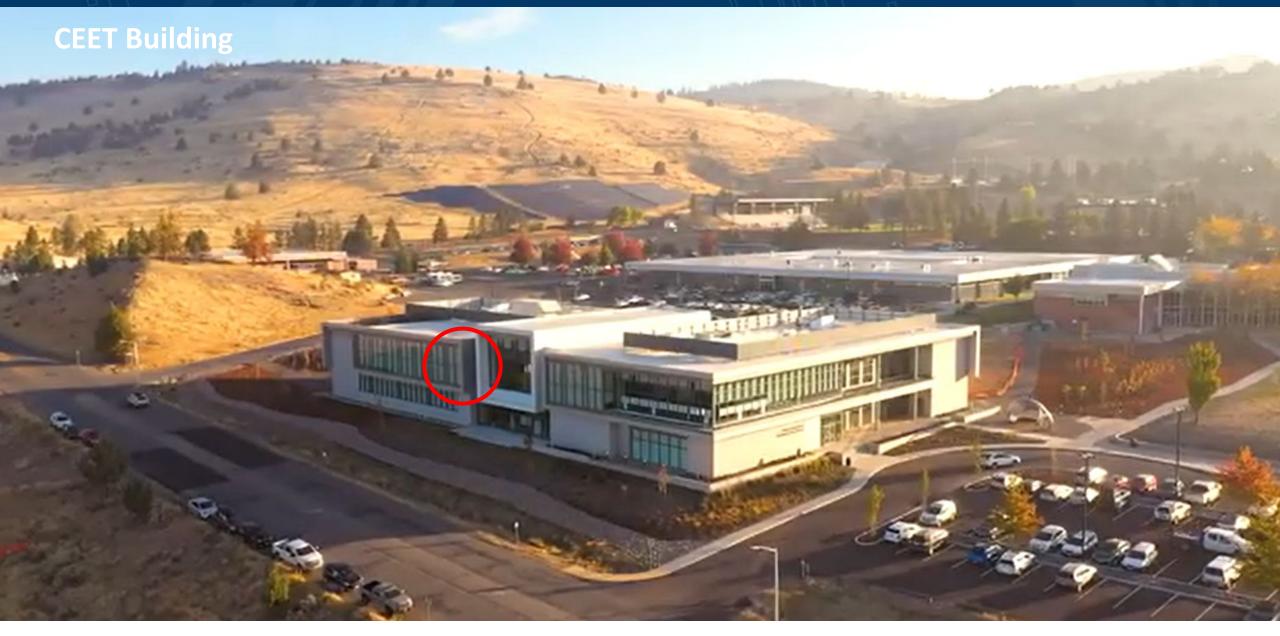






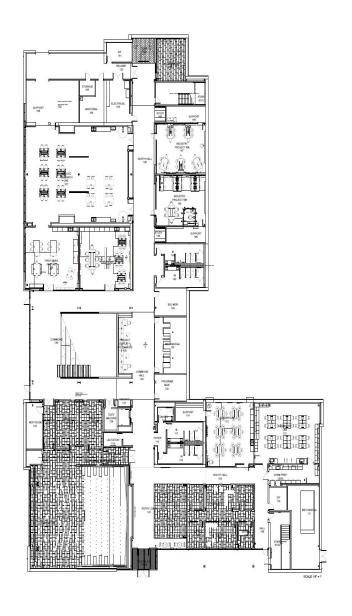


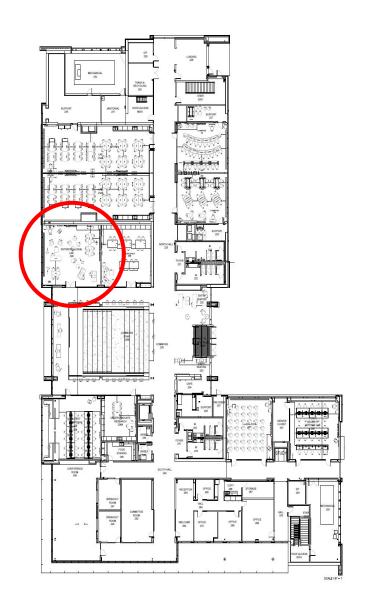












#### **Project Statistics**

Project Size: 70,000 SF

4 Classrooms

8 Labs (Science, Computer)

1 Makerspace

3 Project Rooms

1 Team Room

Commons & Project Display

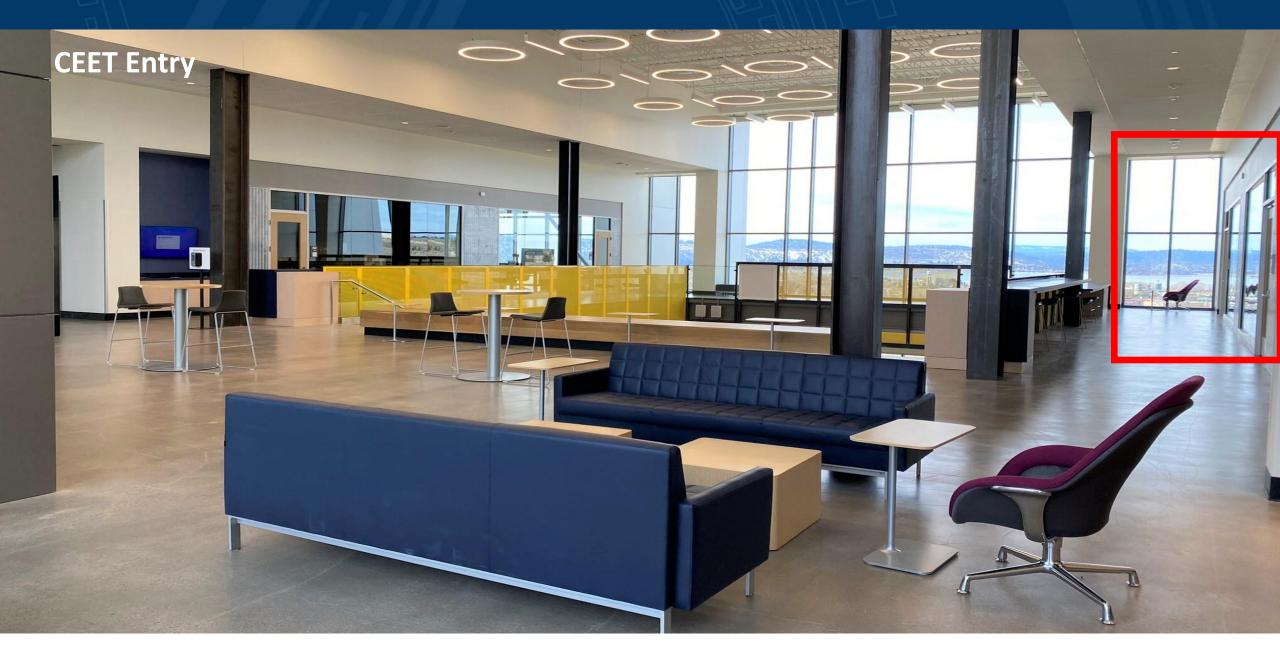
Entry Lobby

**Architect: TVA Architects** 

General Contractor: Adroit Construction





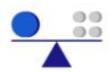






#### Design

#### **Design Principles**









Me + We

Equally support individual and team work Fixed to Fluid

Design for greater flexibility and mobility Open + Enclosed

More enclosed "me" and more open "we" spaces Braiding Digital + Physical

Enhance the human experience through technology





#### Design







MOBILE LOUNGE DESIGNTEX (GRADE 6)



TABLE TOPS CLEAR OAK



NODE WIRE (GRADE 7) SOFA (GRADE 11) DESIGNTEX SILICONE ELEMENT NIGHTSPOT



OTTOMAN + LOUNGE CHAIR HBF TEXTILES (COM) AGAINST THE GRAIN LAUGH OUT LOUD

NODE TRIPOD SHELL LAGOON



NODE WIRE SHELL MIDNIGHT (SOLAR BLACK)

NODE WIRE BASE HONEY

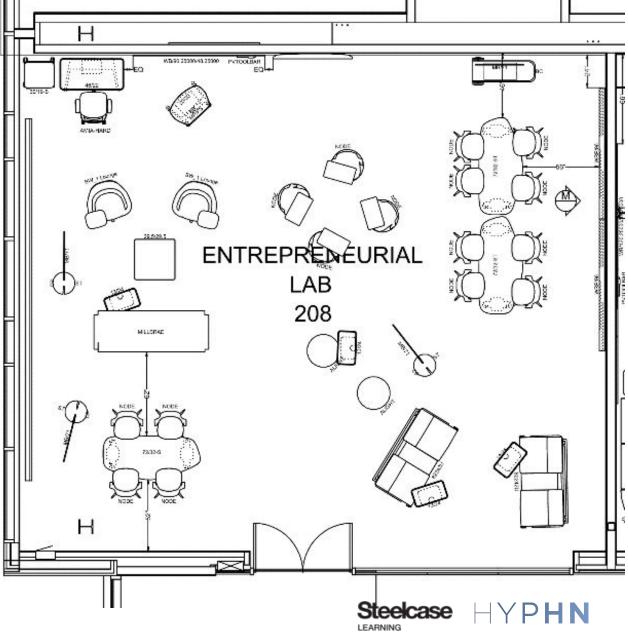




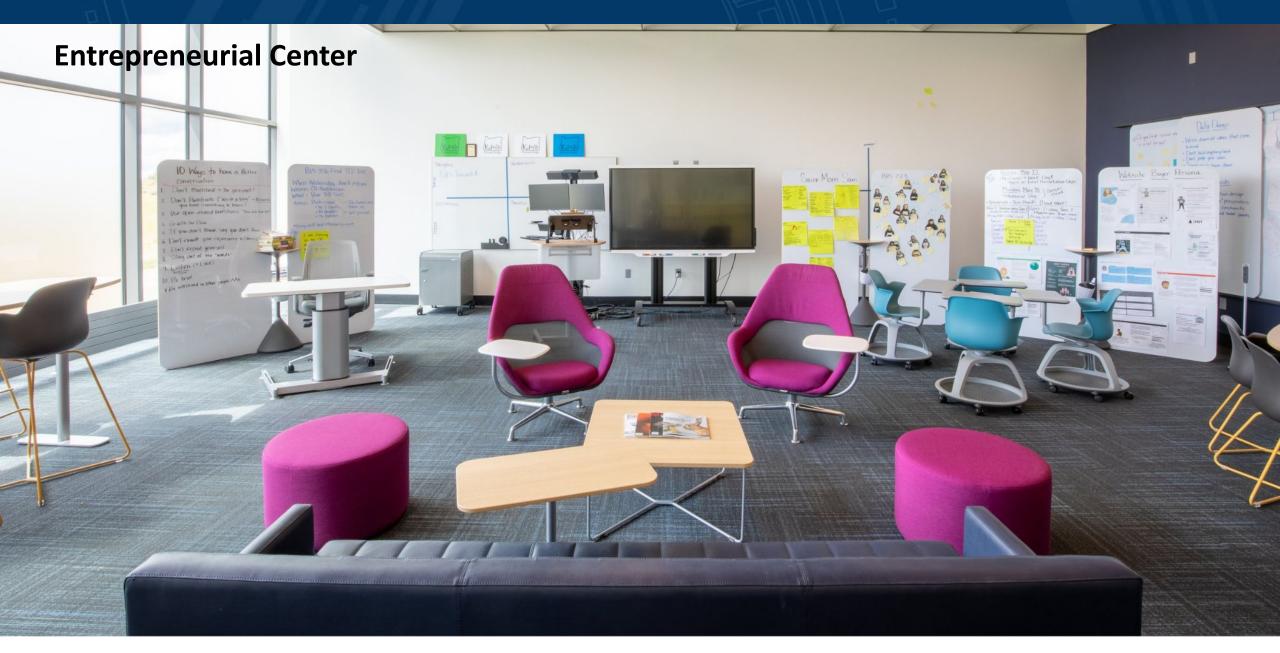
BASES PLATINUM



MOBILE LOUNGE

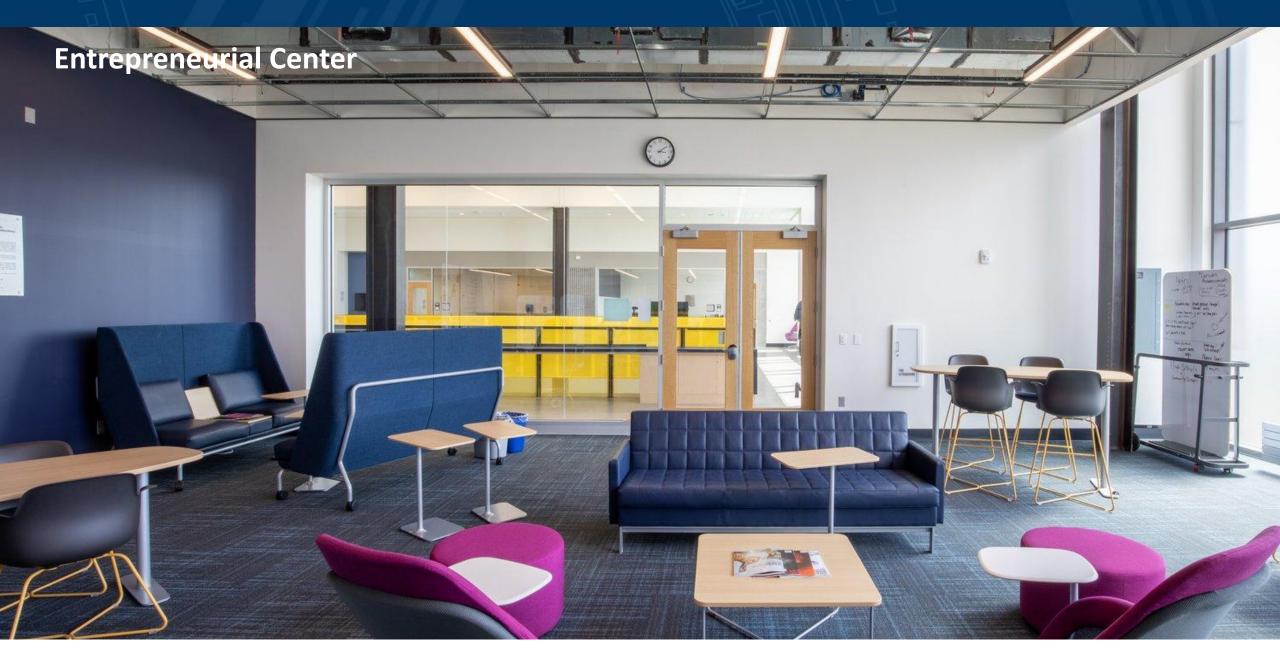






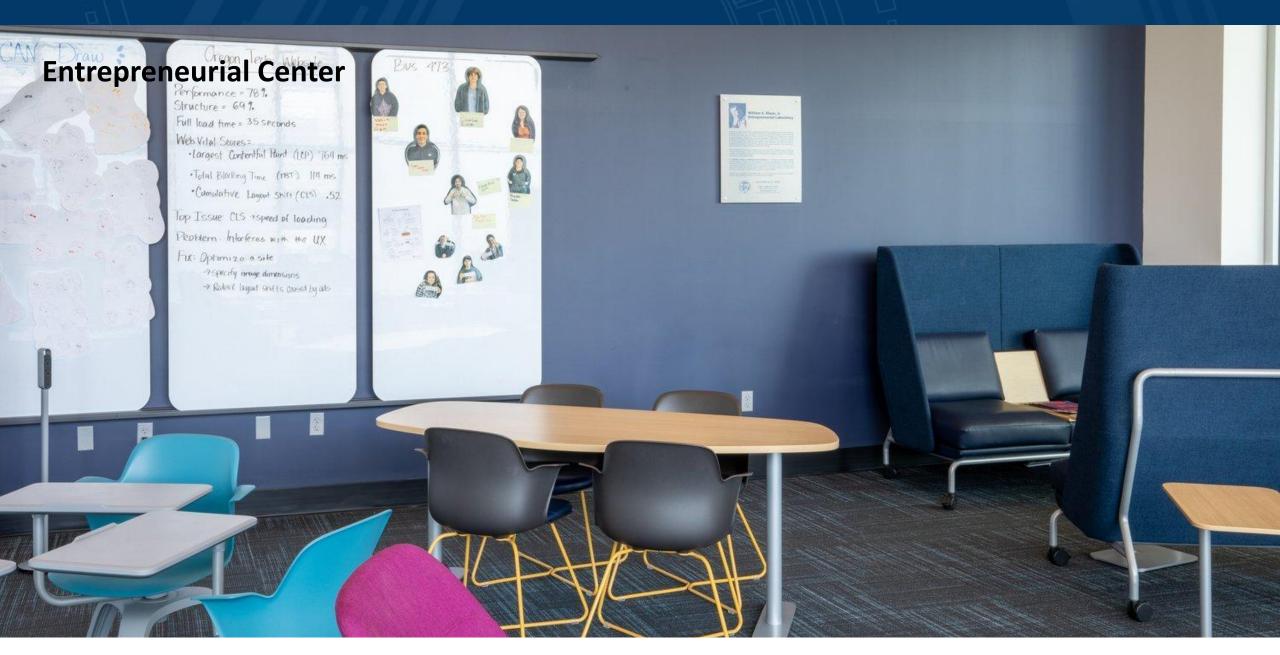






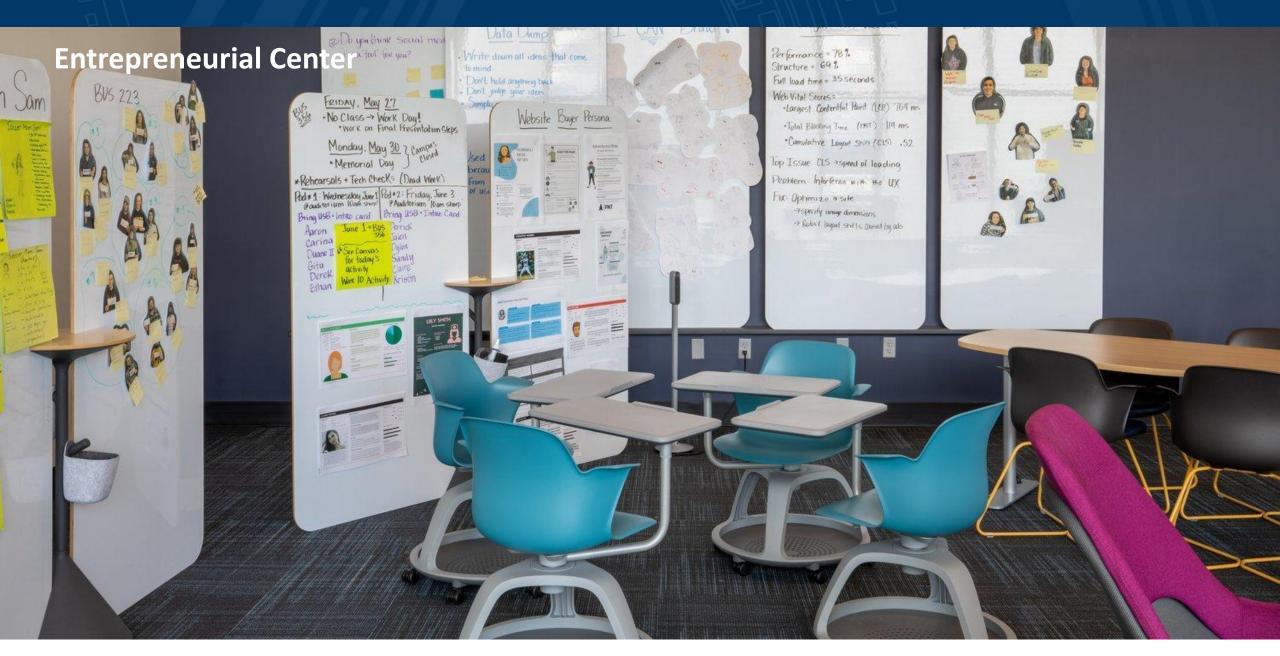






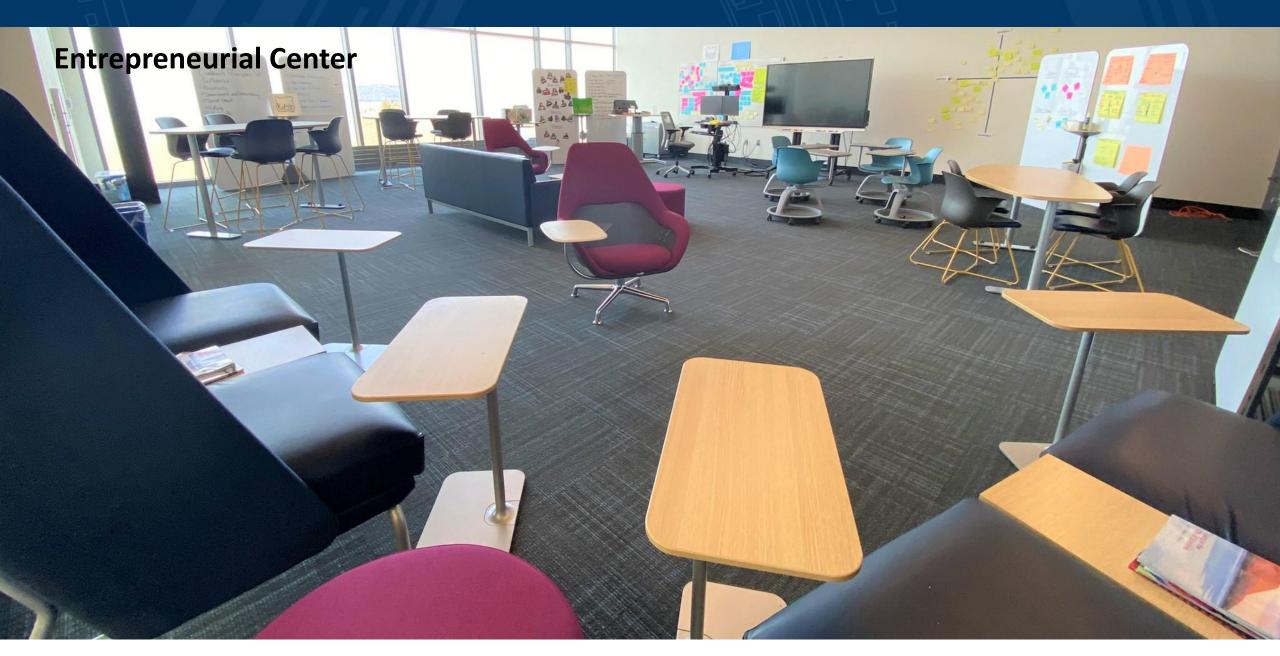






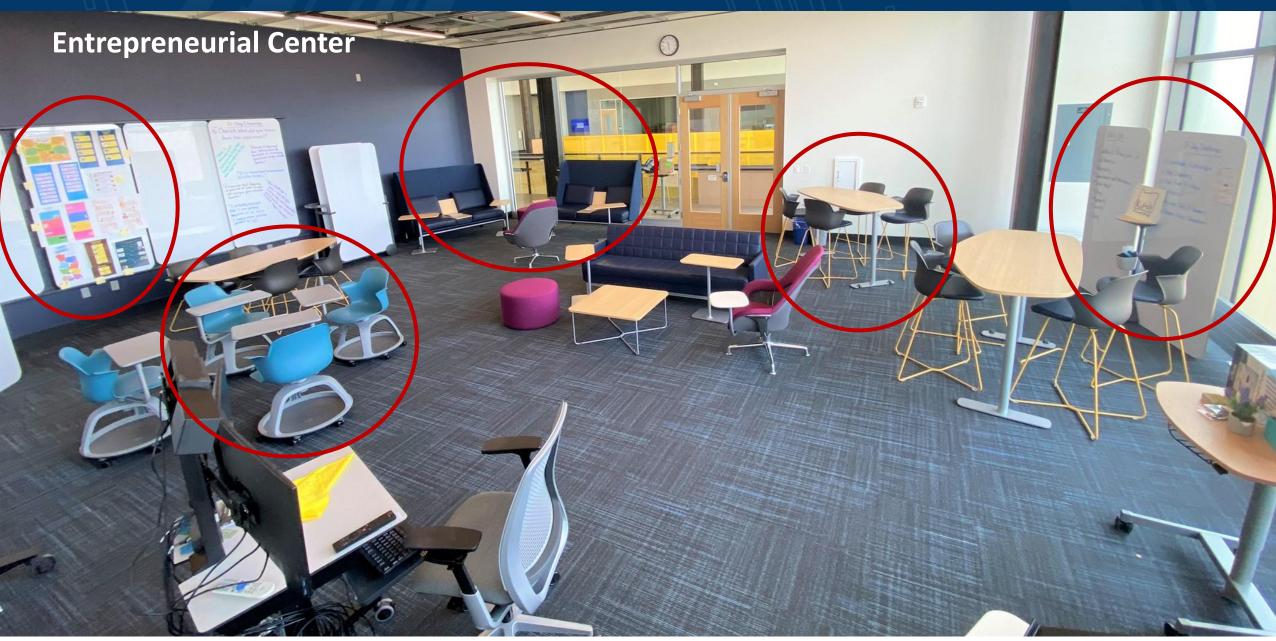
















**Innovation Exercise | Use our Space to Innovate** 





#### **Innovation Exercise**

- Use space & gather in groups around whiteboards (4 groups)
- Brainstorm ideas together
  - No judgement
  - Build on team ideas "yes and.."
  - Be <u>creative</u>, <u>weird</u>, <u>out of the</u>
     <u>box</u>
- Volunteer: write ideas on WB



5 minutes
Potential Benefits/Uses
Selling Points
Target Consumer





#### **Share Out Best Bad Ideas**

**Space Experience** 





Research | Understanding How the Space Supports Innovation & Student Success





#### **Research Questions**

- How do the classroom tools and features aid students in their learning?
- How does the classroom help to develop innovation skills?
- How does the classroom support student success (i.e. motivation and retention)?

#### **Research Methods**

- Pre vs Post Survey
- Traditional vs Entrep Space
   Experience
- 22 Likert Questions & 2 text questions
- Fall 2022

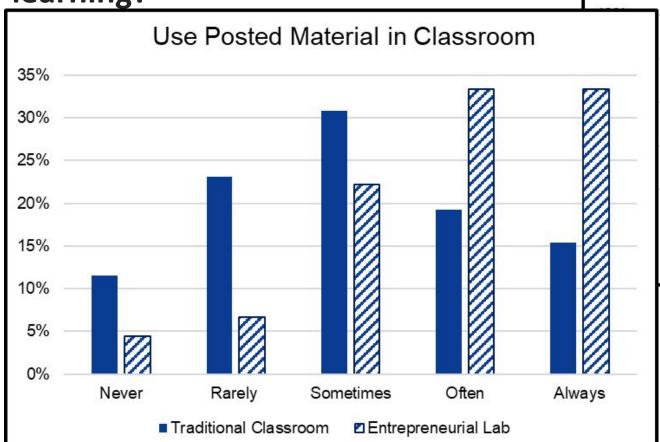
#### **Demographics**

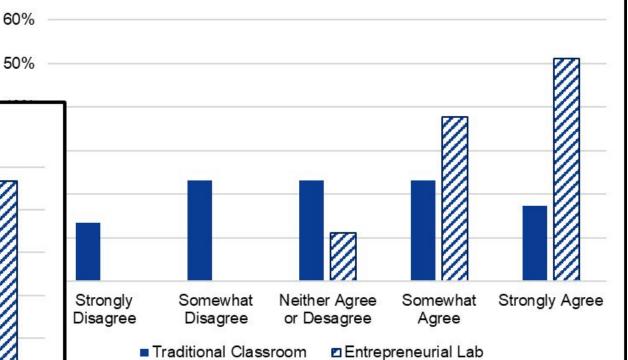
- First-Year 26%
- Sophomore 7%
- Junior 46%
- Senior 14%
- Mix of Business, Technology, Communication & Engineering Majors





How do the classroom tools and features aid students in their learning?





The Classroom Helps me Communicate my Ideas with Others

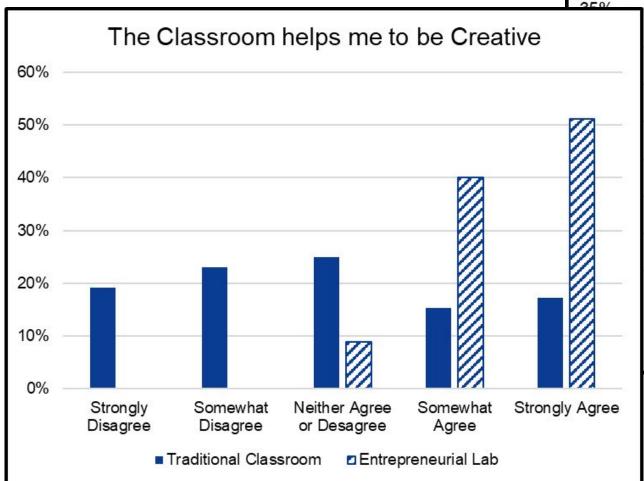
Increased use of writing surfaces to think through ideas.

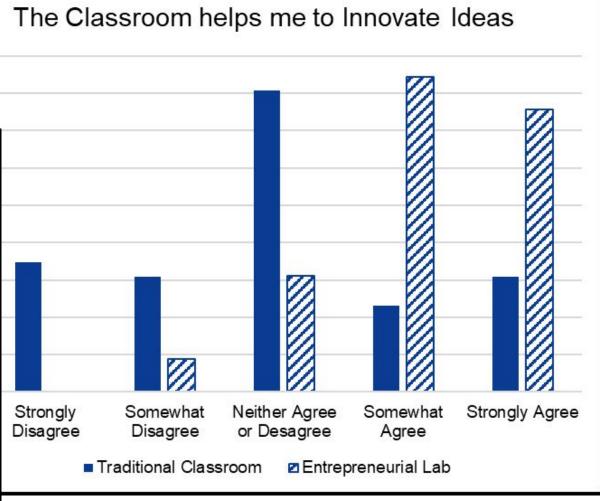


## How does the classroom help to develop innovation skills?

45%

40%





Increased risk-taking, collaboration, critical thinking

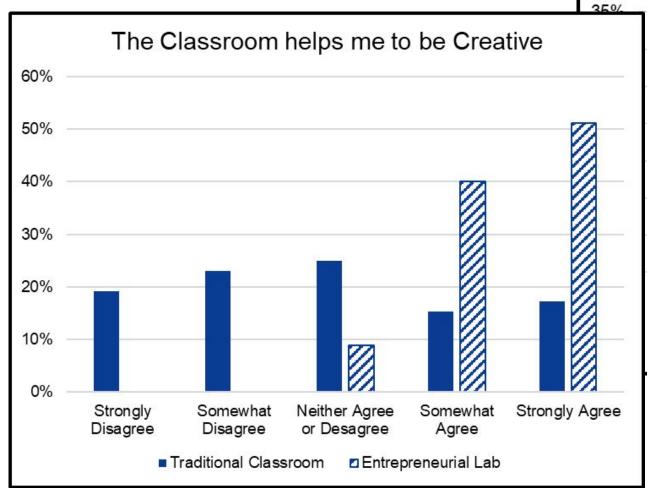


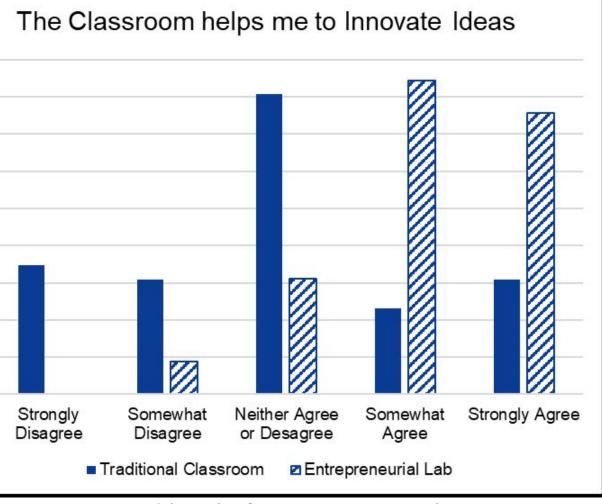


## How does the classroom support student success?

45%

40%





Increased level of motivation, making a friend, feeling confident to participate





#### Impact of Space on Learning

Traditional Classroom Experience

Opportunities Work-Alone See-the-Board Uncomfortable Talked-At Unmotivating Not-Beneficial More-Professional

#### Entrepreneurial Lab Experience





#### Impact of Space on Creativity and Innovation

Traditional Classroom Experience

AloneRules Only-Teacher-Uses-Tools Not-Comfortable Mundane Follow-Teacher Disengaged Boxed-In

Entrepreneurial Lab Experience







#### Instructors' Insights

#### **Embracing the Space**

- No Time Needed to get used to Space
- Encouraged to try New Teaching Techniques

#### **Connections**

- Natural Movement
- Immediate Student-to-Student Connections
- Easier Student-to-Faculty Connections

#### **Activities Observed**

- Creativity & Iteration of Ideas
- Risk-Taking
- Managing Projects

"The space is conducive for those who appreciate and celebrate the student-centric active learning environment."





**Key Discoveries** | Research Outcomes





#### **Discoveries**

#### **Key-Discoveries**

#### **Re-Envisioning the Classroom**

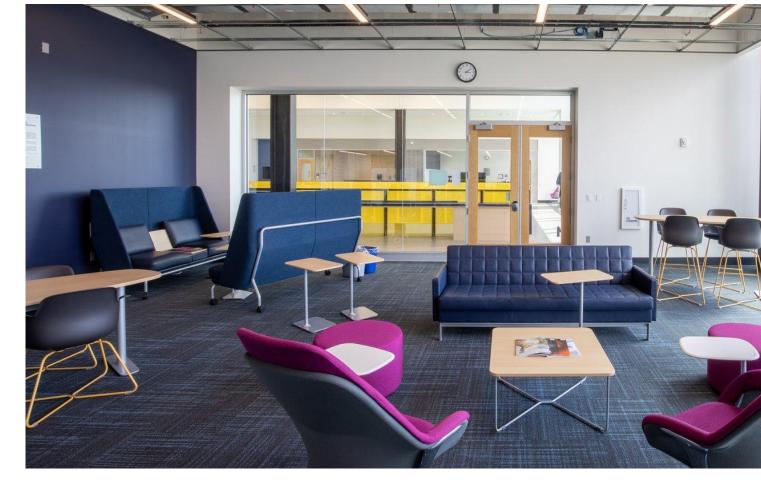
- Even active learning classrooms look like classrooms
- Learning can be enhanced in a non-traditional space

#### Sense of Awe & Pro-Social Space

Sense of being part of something greater than self

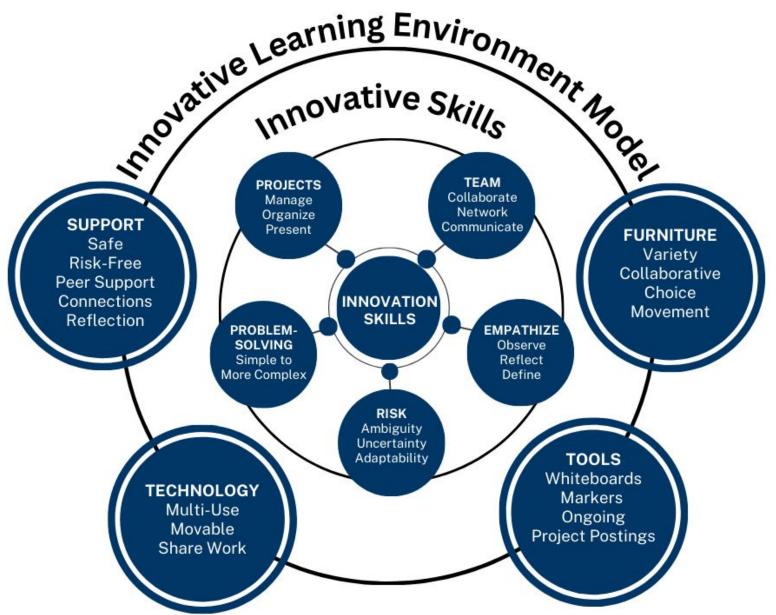
#### **Development of Innovation Skills**

 Development of a framework to create a space to support innovation skill development











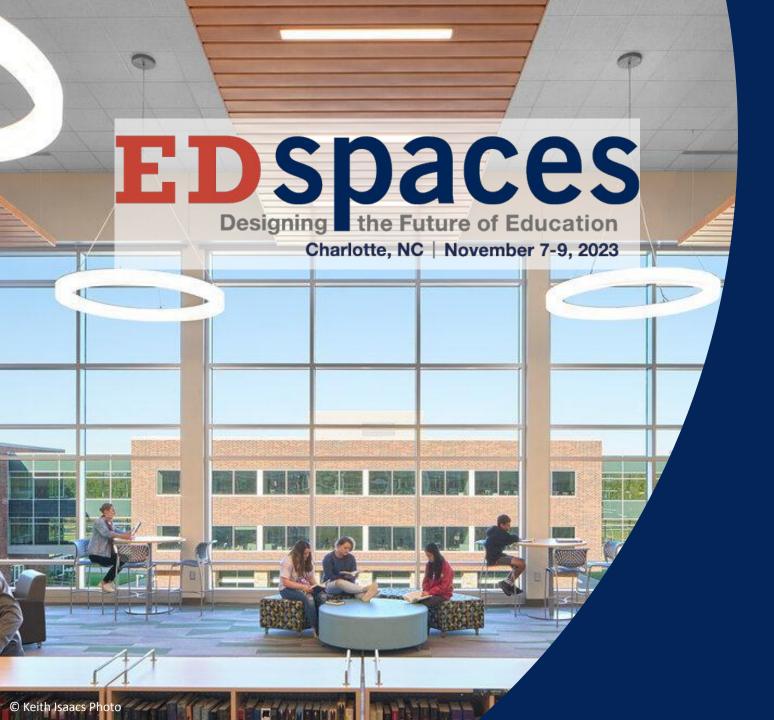


## Want More Info About The Research Study & CEET Project?









### Thank You!

Please scan the QR code to provide session feedback.



