

# Leveraging the Total Cost of Ownership



#### CRITICAL DECISIONS DESIGNING THE NEXT GENERATION OF EDUCATIONAL FACILITIES

March 17, 2015

#### **Learning Objectives**

- 1. Understanding that today's decisions are not the "commodities" of yesteryear. All decisions can impact future operating and capital budgets.
- 1. Observe examples of disruptive design techniques to acquire valuable information when constructing the next generations of facilities supporting unlimited pedagogy in three-dimensional form.
- 1. Explore the utilization of simplicity into the baseline of all environments increasing usefulness in the support of a multitude of teaching and learning styles. "Simplicity" equates to Multi-functional.
- 1. Observe instances where more effective people appear to be a driving force commanding the success of a product for the widest range of stakeholders.



421 AD H20



#### 300 Years



Who, What, When, Why and lastly How





#### **My Journey**

#### **\$ The Bottom Line \$**



**The Next Generation** 



## How Can We Change How People Think?

- TRADITIONAL
- HISTORIC
- EDUCATIONAL
- INFLUENTIAL
- TRAUMATIC



#### **Joplin**



**Dr. Lanoue** 



#### EDUCATION







#### **Aliens**





#### **Catalyst Change**





#### **Checking Boxes**



#### Commodity



#### 4 Topics

- Disruptive design Techniques
- Simplicity
- Untethered Technology
- Environments of Choice



# WHAT WILL BE THE KEY ATTRIBUTES OF AN EDUCATIONAL ENVIRONMENT?

EMPOWERS CHOICE, FOCUS ON IL
PERMITS C&R PROFESSIONAL DEVELOPMENT
ENCOURGES FACILITATION
ENABLES UNLIMITED PEDAGOGY
DEMONSTRATES DEFINING PRINCIPLES



#### **Defining Principles**

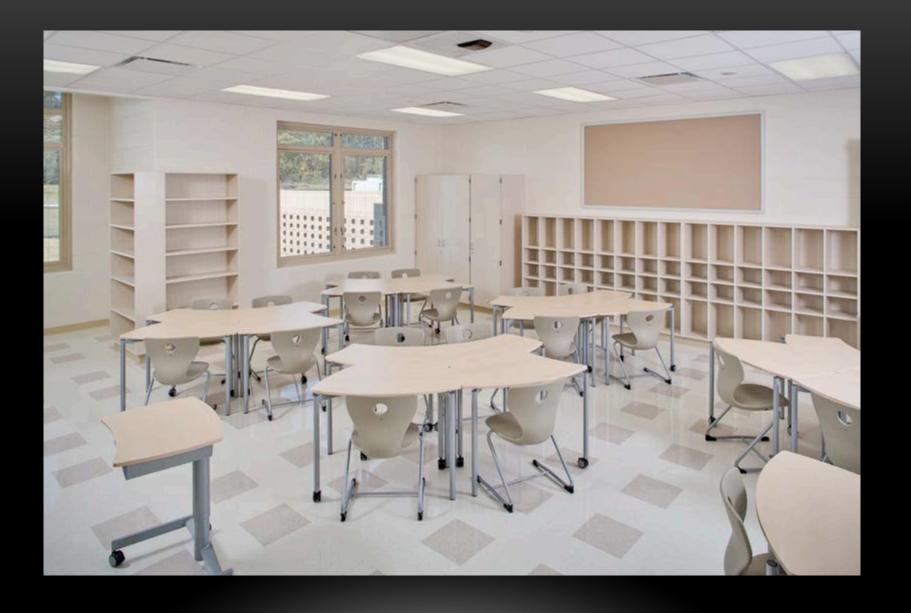
- 1. Change the Environment
- 2. Reduce the Clutter
- 3. Integrate Untethered and Transparent Technology
- 4. Respond to Multiple Learning and Teaching Styles
- 5. Develop Mobility
- 6. Create Adaptable, Agile and Recoverable Tools
- 7. Design Multi-Functional Tools
- 8. Create Fun, Inviting and Engaging Environments





#### Leave Your Baggage at the Door





We Don't Know What We Don't Know





**Analyze Multiple Teaching & Learning Strategies** 

#### **PROCESS**

We designed and Tested a tremendous amount of new systems, processes and tools.







**Change Vocabulary** 





#### **Change the Environment**

#### CHANGE IS A PROCESS NOT AN EVENT





#### **CHANGE MUST BE NURTURED**





#### **Next Generation?**





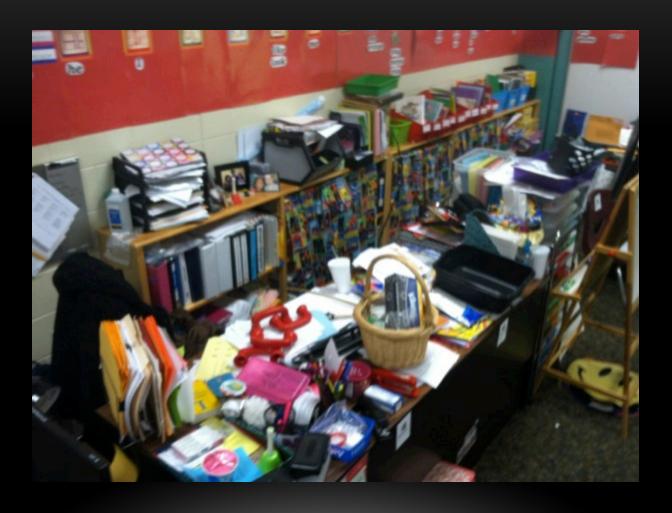
#### **Support Differentiation?**





#### Flexible or Agile?





#### **Encourage Facilitation?**





1893 Horace Mann School For the Deaf Miss Fuller and her Class AH Folsom Boston Public Library

#### 21st Century



#### **Prototype**





Trillium Creek Primary School, West Linn-Wilsonville School District West Linn, Oregon DOWA-IBI Architects

#### TCO A Holistic Design Approach





iPad



### Disruptive design Techniques can Help us Acquire

Valuable Information

When Constructing the "Next" Generations of Facilities

Be the Champion, Be the Designer





#### **Disconnect**



L.O.L.



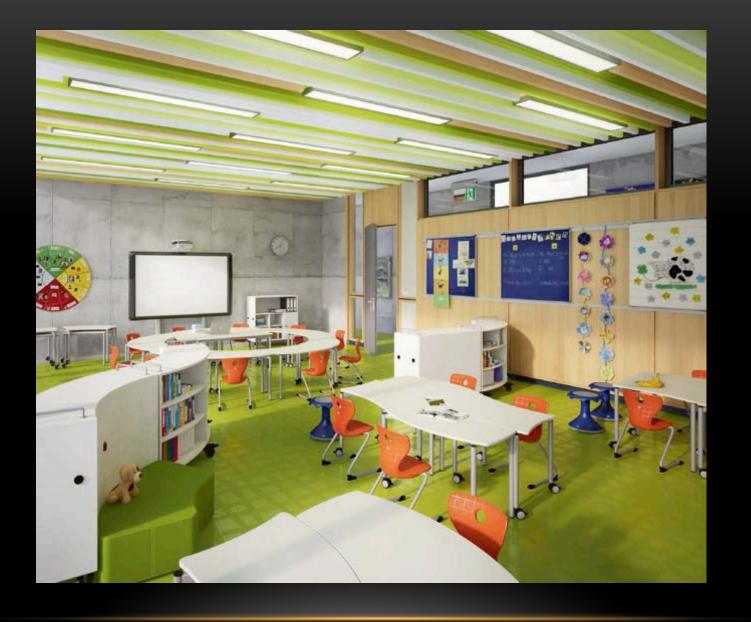


### **Personal Space**



### **Proxemics**





### **Stop Designing For Us**



### Simplicity

Can

### **Increase Usefulness**

In Support of A Magnitude of Teaching & Learning Styles

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Reduce Reduce Reduce **Simplify Simplify** Simplify



### Reduce the Clutter





### What do we need



## Create Systematic & Purposeful Storage Solutions





### GRADE LEVEL STORAGE



### Design Multi-Functional Tools, TCO

As a response to numerous guiding principles to streamline the learning environments by creating a reduction of the amount furnishings and equipment, the *critical need* for creating tools that are multifunctional becomes *paramount*.

Another benefit gained from a multi-functional set of tools is the ability of stakeholders to do more with less; supporting the principle to reduce clutter.







### Differentiation





### Recoverable





### Multifunctional





### **Agile**



# Integrating Untethered Technology Can Encourage Facilitation





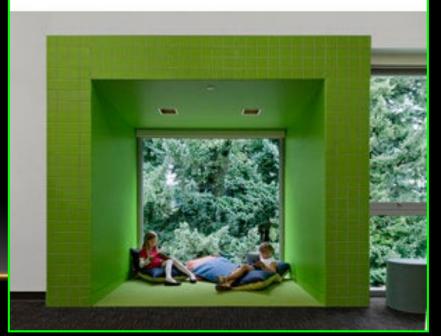
### IS IT ABOUT MORE TECHNOLOGY?

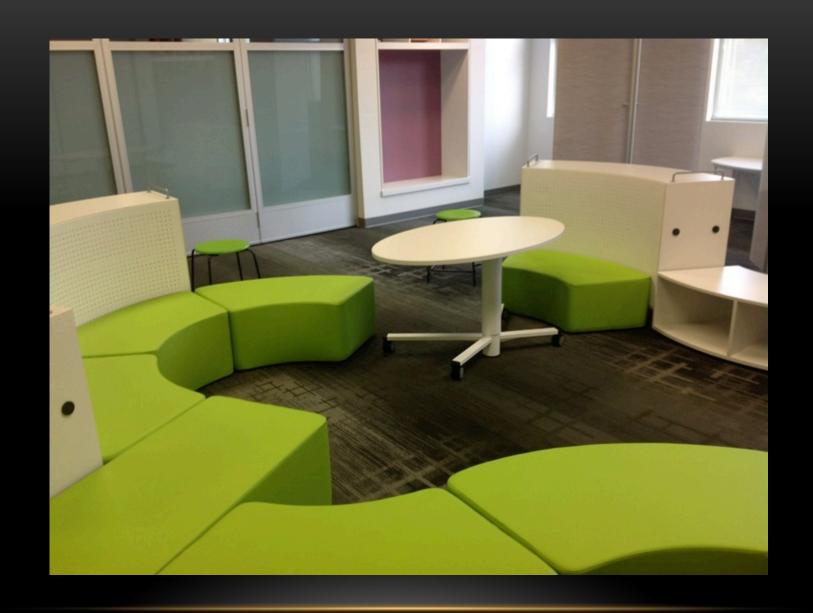


### TRANSPARENT AND UNTETHERED TECHNOLOGY



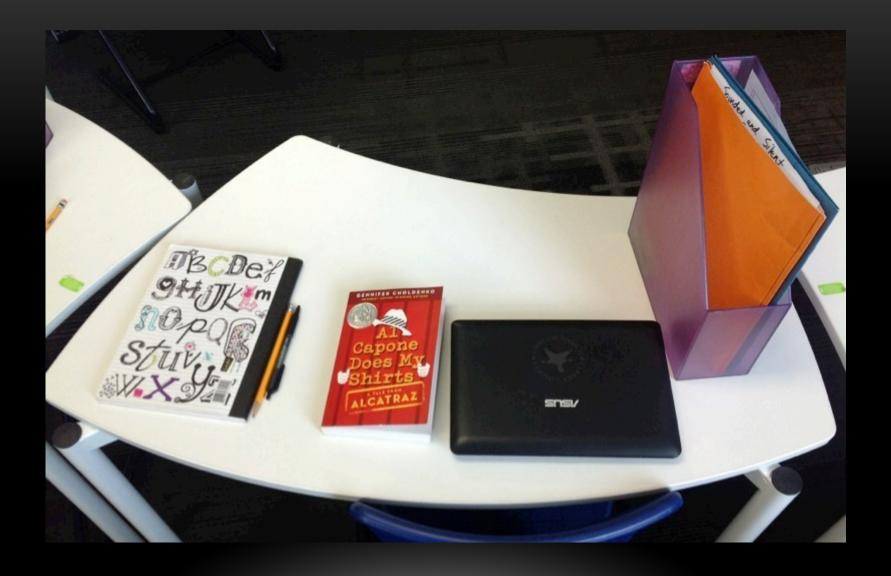




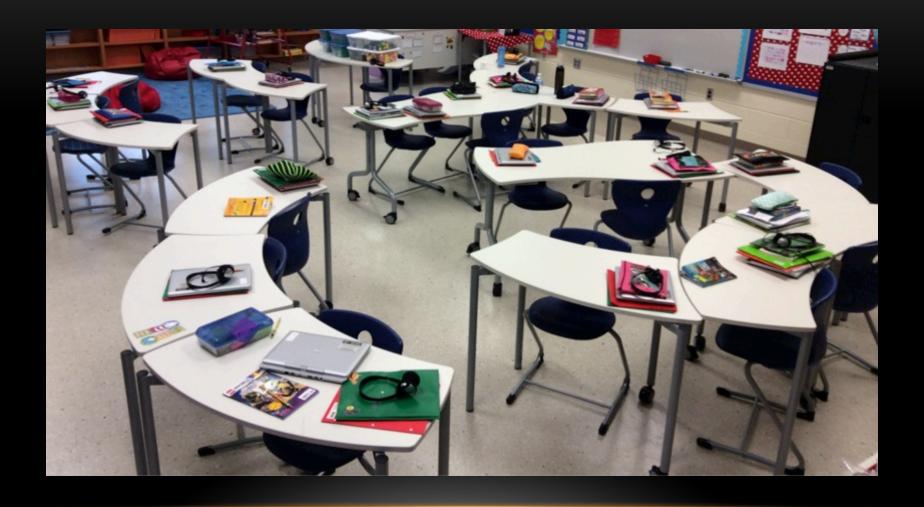


Simple and Easy to Use















## Creation Of Environments of Choice Can Provide

Opportunities of 100% Engagement Even in Moments of Disruption



### WHEN YOU READ A BOOK...





**EMPOWERING CHOICE** 

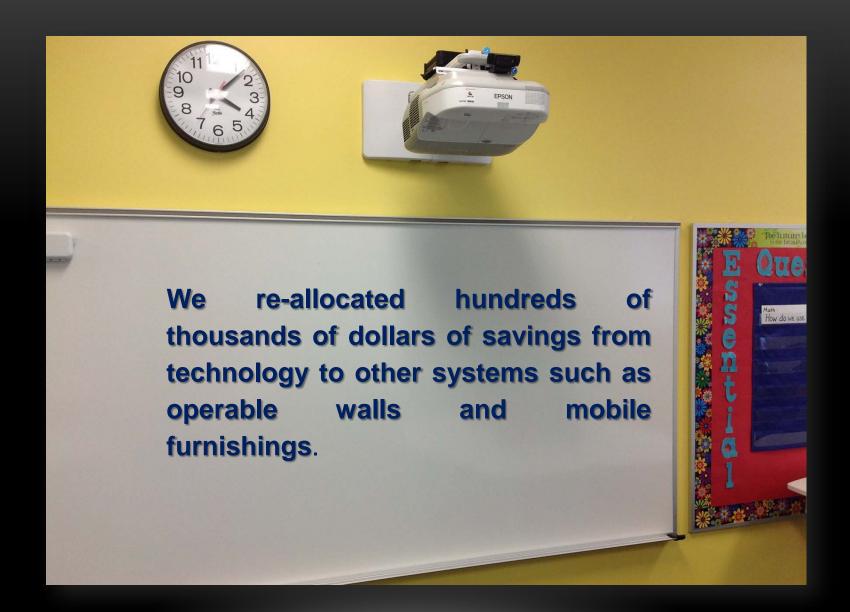
Diverse, Familiar, Agile, intuitive







### **Diversity**



### **TRANSPARENT**

963 Classroom Refresh Project

\$ 3,530 Budget, Previous Model

\$ 3,399,390 Total Budget

\$ <u>1,800,000</u> Project Cost

\$ 1,599,390 Savings

- Refresh, Bulbs, Maintenance
- Non Proprietary

### **SAMPLE PROJECT**

#### **Our Results**

We reduced technology expenditures by <35%

While increasing the functionality of the technology systems

And introducing new learning tools

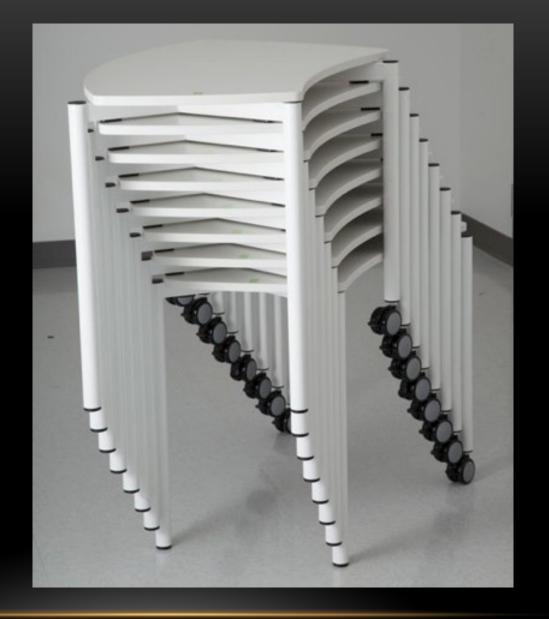
And providing unprecedented opportunities for professional development.



### **Summer Cleaning**

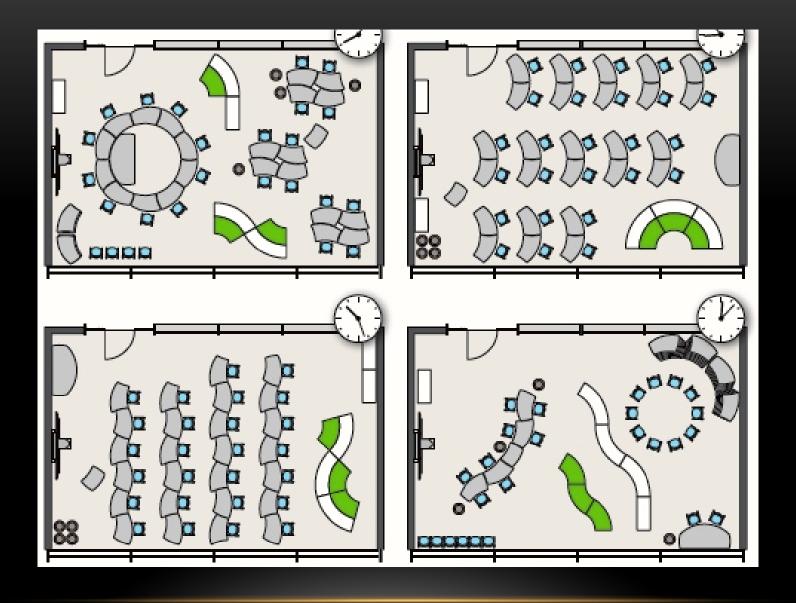


### Design



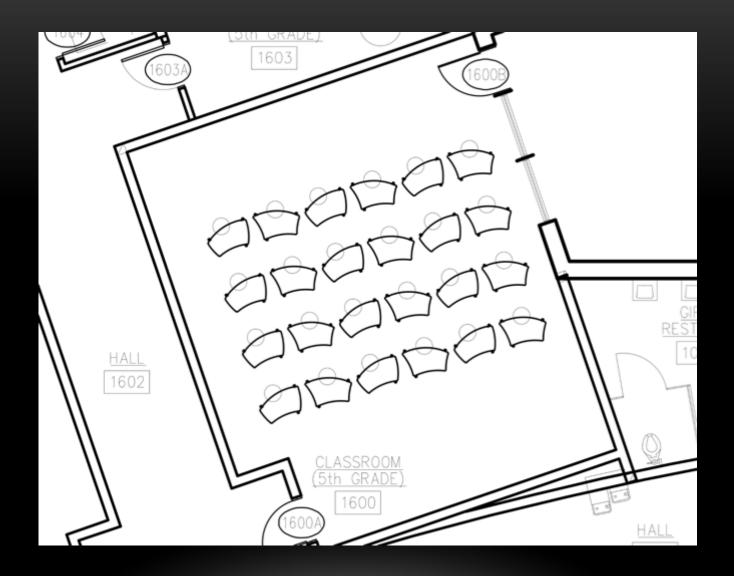
### **Cost of Ownership**



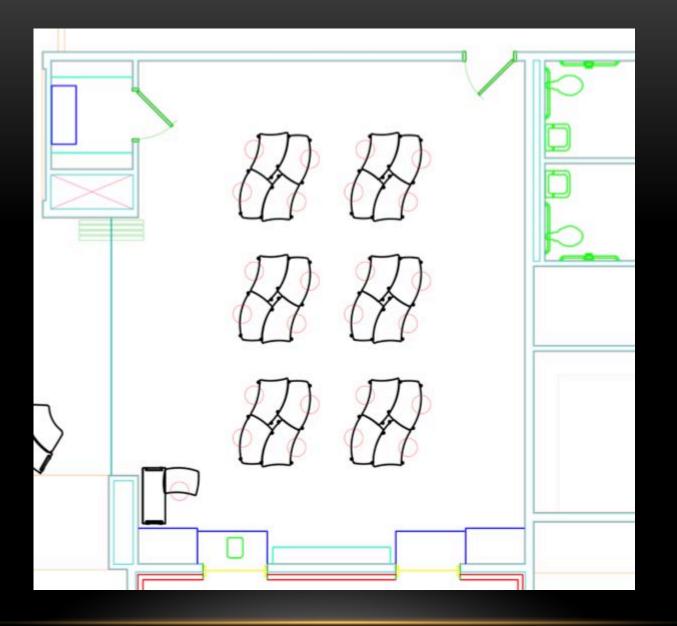


26 Positions in 748 SF

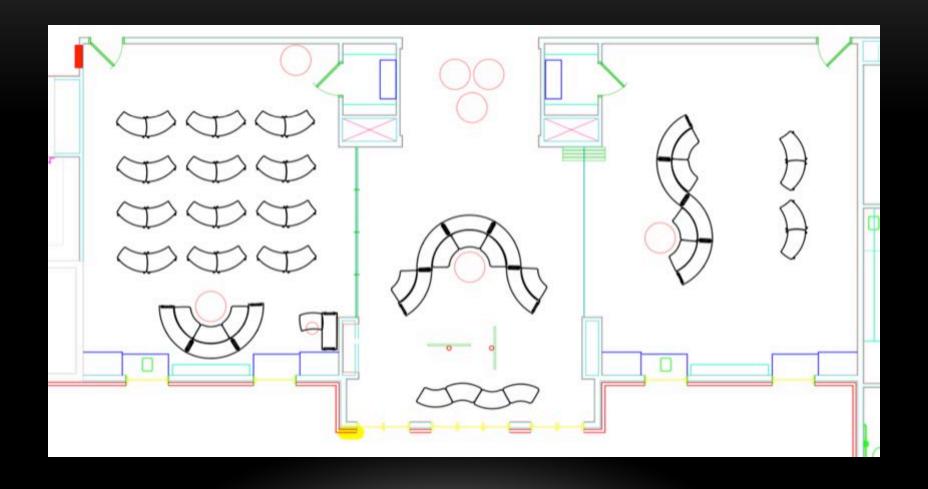












### Plan of 3 Conjoining Classrooms





### **Our Results**





### What We learned





### Agile

### **WHAT WE LEARNED**



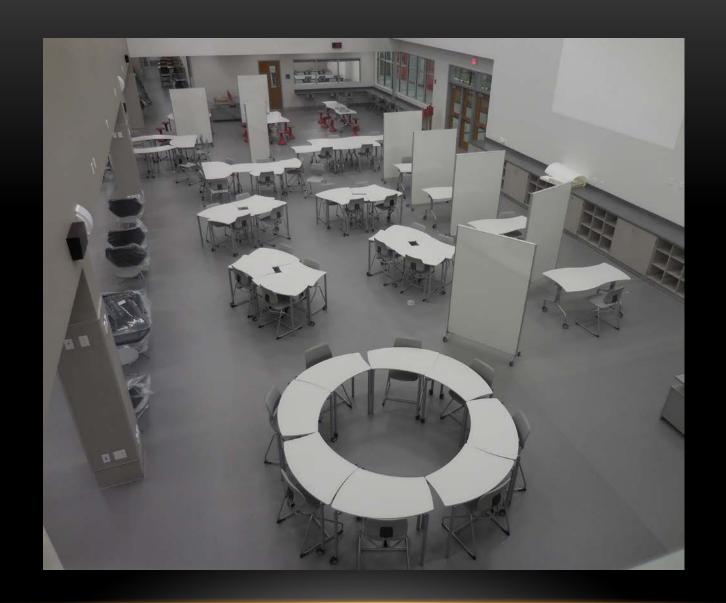




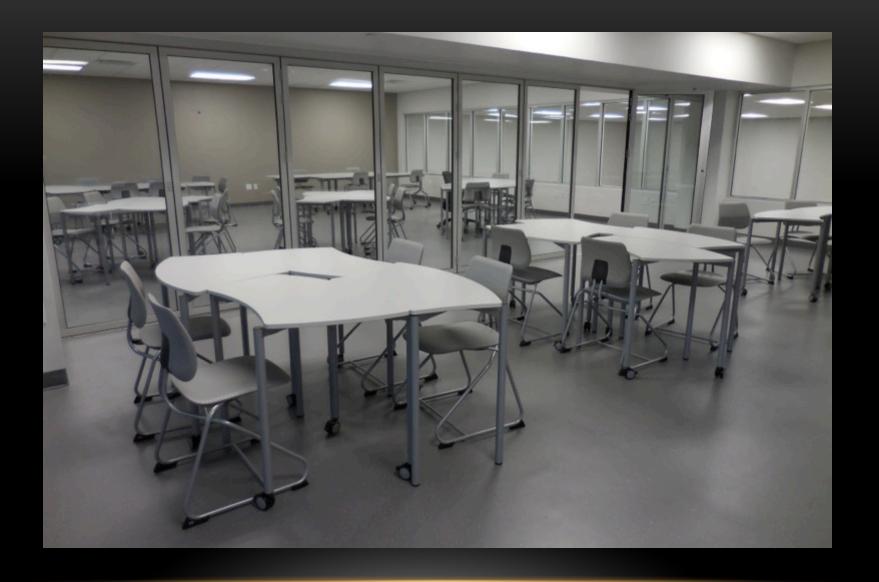












### **Created Environments**



### **Cultural-Shift**

David A Stubbs II

Cultural.Shift@yahoo.com

www.cultural-shift.com

706.338.3204