

# BEYOND DESIGN PROJECT ZERO:

How **design thinking** can jump start the creative process in planning for **innovative learning** environments.

Global Innovations in Place  
October 29, 2017 4:30 PM

October 28, 2017, 4:30 PM  
Marriont Marquis, ROOM A704

Atlanta, GA



# BEYOND DESIGN PROJECT ZERO:

## Abstract:

This session will require active participation from the attendees in understanding, identifying, and applying design thinking techniques. The session will highlight how design thinking has been applied to learning environments by both educators and learning environment planners. Case studies of how these techniques improved collaboration and creativity will be discussed and demonstrated.

### Learning Objectives:

1. Describe what Design Thinking is and how it is being used in education.
2. Identify Design Thinking techniques used to increase collaboration and creativity.
3. Understand how to integrate Design Thinking into visioning for educational design projects.
4. Understand how Design Thinking techniques can aid in compressed project schedules.

Global Innovations in Place  
October 28, 2017 4:30 PM

October 28, 2017, 4:30 PM  
Marriott Marquis, ROOM A704

Atlanta, GA



# BEYOND DESIGN PROJECT ZERO:



**PAUL HARTSIG**  
SUPERINTENDENT  
DOMAGIAC UNION SCHOOLS



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**LearningsCAPES 2017**

**LearningScape 2017**  
**Global Innovations in Place**

October 28, 2017, 4:30 PM  
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## Who uses DESIGN THINKING?



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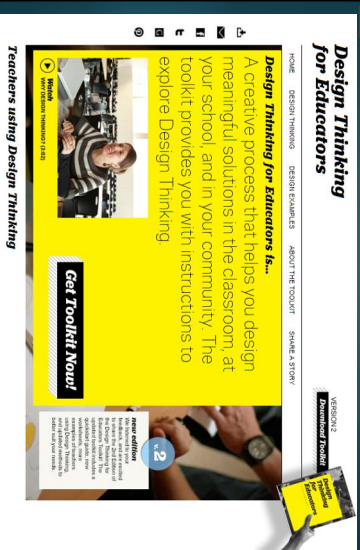
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## Who uses DESIGN THINKING?



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## Building Empathy for the User

Design → design **thinking**

One → Many

Noun → Verb

Building → Experiences

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## Educational Facility Planning



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## Dowagiac Middle School 2005



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## Dowagiac Middle School 2005



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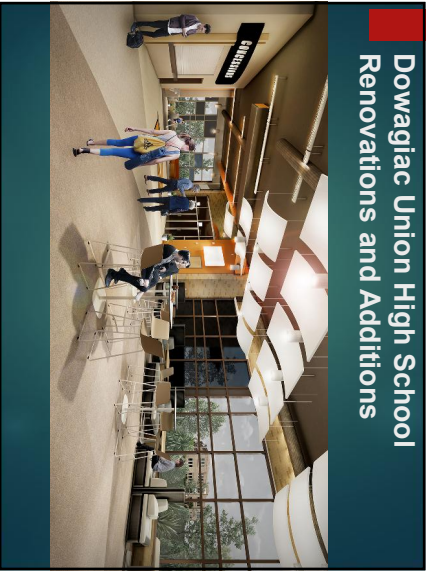
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Hersey-Blanchard Leadership Theory			
S1	Telling	Leader defines the roles of the individual or group and provides the what, how, why, when and where to do the task	
S2	Selling	While the leader is still providing the direction, he or she is now using two-way communication and providing the socio-emotional support to "sell" their message to get people on board.	
S3	Participating	Leader shares decision-making about aspects of how the task is accomplished and the leader is providing less task behaviors while maintaining high relationship behavior	
S4	Delegating	Leader is still involved in decisions; however, the process and responsibility has been passed to the individual or group. The leader stays involved to monitor progress	

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## Designing the Dowagiac Middle School



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## Designing the Renovated High School



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## Design Thinking for Dowagiac

How Design Thinking Worked for Dowagiac

We...

Developed goals and a vision

Defined what 21<sup>st</sup> Century Learning means for Dowagiac

Designed spaces that followed the goals and vision

Created plans and voted on the best

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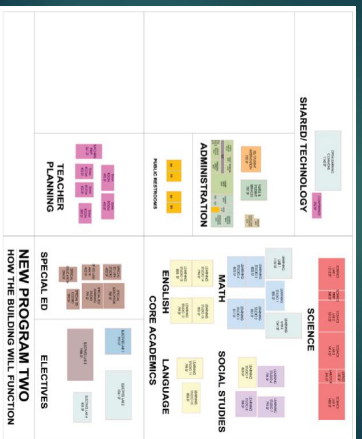
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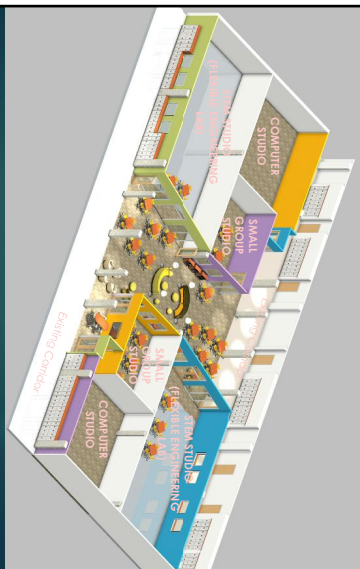
## The Design Charrette



## The “Final” Design



## The “Final” Design



### SITUATIONAL LEADERSHIP® II

THE FOUR LEADERSHIP STYLES

SUPPORTIVE BEHAVIOUR		↓	
(High)		(Low)	
<b>S4</b> High Supportive Low Directive Behaviour	<b>S3</b> High Supportive High Directive Behaviour	<b>S2</b> High Directive High Supportive Behaviour	<b>S1</b> High Directive Low Supportive Behaviour
DELEGATING		DIRECTING	
↑		(High)	
(Low)		(High)	
SUPPORTIVE BEHAVIOUR		↑	

## Diagnose the Team

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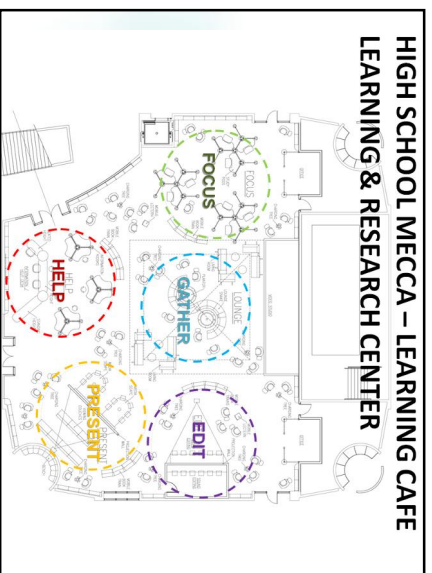
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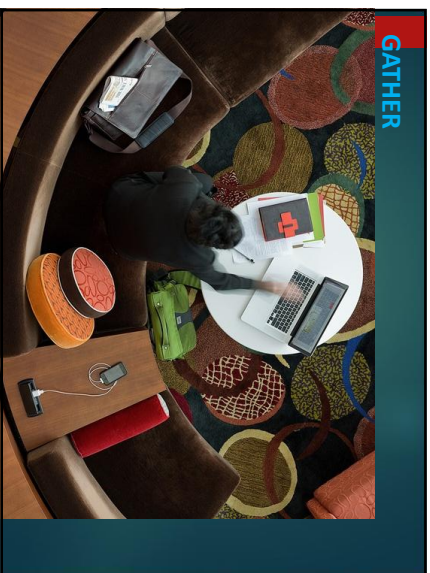
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Gurnee Viking Middle School LMC



<b>Your mission: Create a Vision for Viking Middle School... for your partner</b>			
Second Interview - 12 min ( 2 sessions x 6 minutes each.)			
What are the intended OUTCOMES for the new LMC environment in your school?		EDUCATION What are the intended educational outcomes? How will the LMC space be used educationally?	CULTURE & RELATION What are the intended cultural outcomes? How will the LMC space be used socially?
For Students (3 minutes)	<ul style="list-style-type: none"><li>• Small, private room to work on projects</li><li>• Need a table, projector to reflect, read and show your group what you are doing</li></ul>		<ul style="list-style-type: none"><li>• Use for homework after school with a teacher available to help</li></ul>
For Teachers & Staff (3 minutes)	<ul style="list-style-type: none"><li>• Teachers could observe another class in a different content/grade level to learn new ideas or work on cross-curricular topics</li></ul>		<ul style="list-style-type: none"><li>• Teachers could meet in library to work together</li></ul>
2. Dig Deeper			

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A day in the life... of a typical Viking Middle School Student.

Third Interview - 6 min ( 2 sessions x 3 minutes each )

Map the activities of a student's typical day. Tell us about the places he/she will go, the things he/she will do, the people he/she will meet.

BEFORE School?	DURING School?	AFTER School?
<ul style="list-style-type: none"><li>• Finish homework</li><li>• Relax</li><li>• Socialize</li></ul>	<ul style="list-style-type: none"><li>• Come in during recess to work on homework</li><li>• During RLCA with teacher permission, teacher could send student groups down to work on a project</li></ul>	<ul style="list-style-type: none"><li>• Projects with available assistance</li><li>• Socialize</li><li>• Open an hour after school 3:30 pm</li></ul>

3. Empathy for Students

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Spaces that Inspire

Define the problem statement - 5 minutes

What does your partner define as being the biggest areas of need for the LRC at Viking Middle School?

The LRC at Viking Middle School

needs a way to ... Have separate yet open rooms available for group, various/multiple classes, or independent study

needs a way to ... Provide teacher access to help students before and after school and even during the day while in the library

needs a way to ... Be open more than just the school day to extend learning hours.

Surprisingly // because // but ... (circle one)  
This will allow for all student to have access to library in case the school day doesn't always allow for the student to have access during the day. The library should also be used for socializing and relaxing before and after school. (insights)

5. Define the Problem

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Gurnee Viking Middle School LMC



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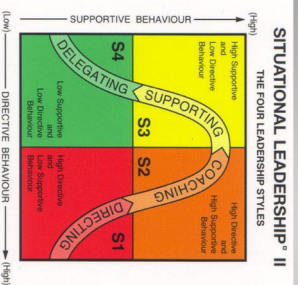
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Gurnee Viking Middle School LMC



# Diagnose the Team

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## Next Generation Science Labs

## FLOOR PLAN (BEFORE)

The school's previous lab were arranged as four traditional spaces. There was no ability to do lab work and teachers were restricted to books and lecture. The environments lacked the resources, flexibility and collaborative spaces needed to successfully implement Next Generation Science Standards.

**FIXED LAB STATIONS**

NO LIFE SAFETY FEATURES, SUCH AS  
SHOCK-RES. GAS SHUT OFF OR  
MULTIPLE MEANS OF EGRESS

Response	Percentage
Good job	60%
Not a good job	40%

**CONSIDER  
WALLS LACKED  
PROPER FIRE  
SEPARATION**

NO INTERCONNECTION  
BETWEEN  
CLASS ROOMS

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### Next Generation Science Labs

#### EXTERIOR - INDOOR/OUTDOOR CONNECTIONS

Focus on the connections between indoor and outdoor environments, allowing students to understand the relationship between the two.



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### Next Generation Science Labs

#### INTERIOR - INQUIRY-BASED LEARNING (AFTER)

Students are able to use inquiry-based learning to explore the relationship between the indoor and outdoor environments. A focus on the connections between the two environments, allowing students to understand the relationship between the two.



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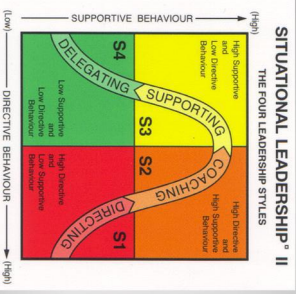
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### SITUATIONAL LEADERSHIP® II

#### THE FOUR LEADERSHIP STYLES



### Diagnose the Team

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## DESIGN THINKING TECHNIQUES

Think  
Pair  
Share

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## DESIGN THINKING TECHNIQUES

for 30 seconds  
for 1 minute  
during class  
before class

turn to your neighbor  
walk across the room  
group size = 2  
group size = 3 or 4

with the whole class  
with another group  
verbally  
in writing

**THINK - PAIR - SHARE**

Ask students to respond to a question independently, with pen and paper or a laptop

Have students compare answers in small groups.

Ask students to share their work with the class.

in writing  
as you doodle

agree to disagree  
explain your reasoning  
share your opinion

via polling software  
via whiteboard  
class discussion  
time for telling

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## DESIGN THINKING TECHNIQUES

What  
How  
Why

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Response:	
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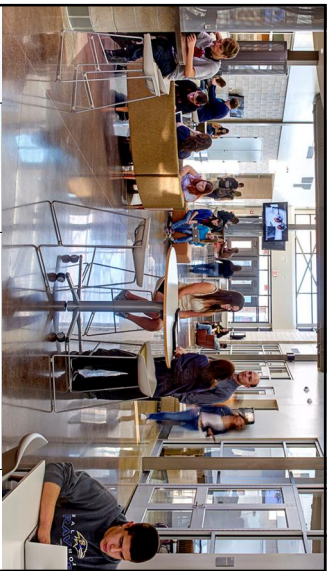
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Question:	Response:
What are they doing?	
How are they doing k?	
Why are they doing k?	

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Response:	
ding?	
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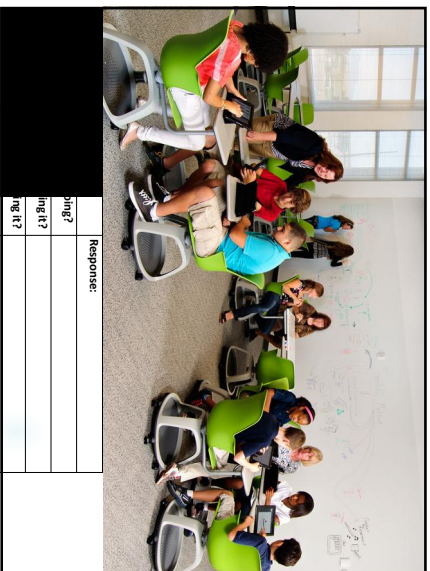
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# DESIGN THINKING TECHNIQUES

Photosort  
I Like  
I Wonder  
Apply

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<p><b>TITLE PAGE</b></p> <p>11/18/2018          Fanning &amp; Howey          Young Middle School LDC Visionary Session          Winona State University</p>	
<p><b>CLIENT</b></p> <p>FANNING•HOWEY</p> <p><b>APPLICATION TO VISIT MIDDLE SCHOOL LDC</b></p>	

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DESIGN THINKING CRYSTALIZE

Ideate  
Post-It Notes

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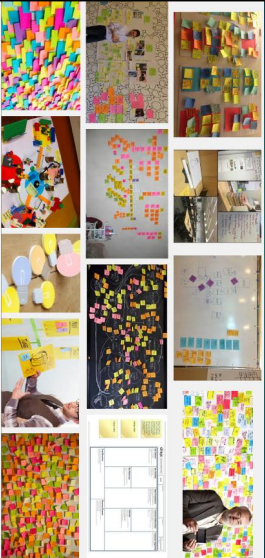
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DESIGN THINKING TECHNIQUES



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DESIGN THINKING CRYSTALIZE

Small Group  
Flip Charts

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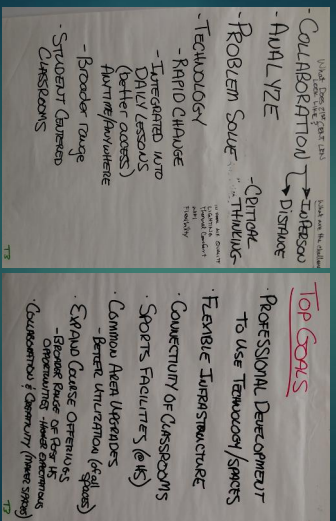
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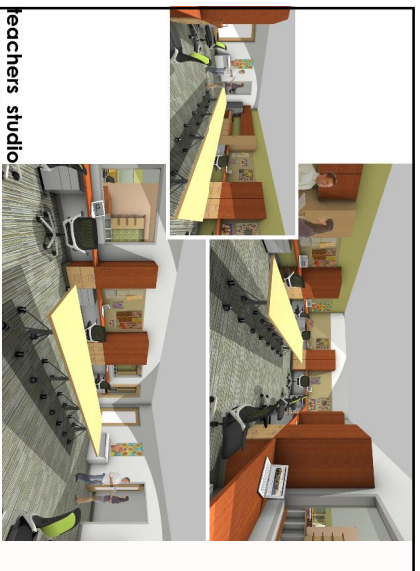
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## Appendix A – Workshop One – Sample Work 1



# DESIGN THINKING CRYSTALIZE

# Vote! TurningPoint Stickers



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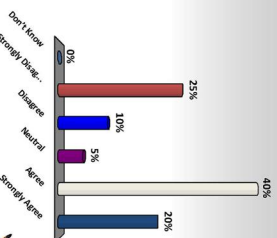
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b. Do you agree with the following statement?

I would support flexible scheduling of classrooms if teacher planning space were available outside the classroom.

1. Don't Know
2. Strongly Disagree
3. Disagree
4. Neutral
5. Agree
6. Strongly Agree



FANNING HOWEY



"Respect, Responsibility, Trust"



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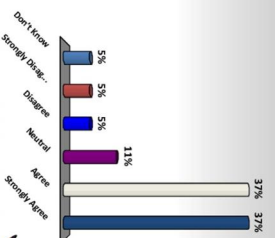
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d. Do you agree with the following statement?

The design of the school should include **extended learning spaces**.

1. Don't Know
2. Strongly Disagree
3. Disagree
4. Neutral
5. Agree
6. Strongly Agree



FANNING HOWEY



"Respect, Responsibility, Trust"



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## DESIGN THINKING TECHNIQUES

# Design Thinking Bootcamp

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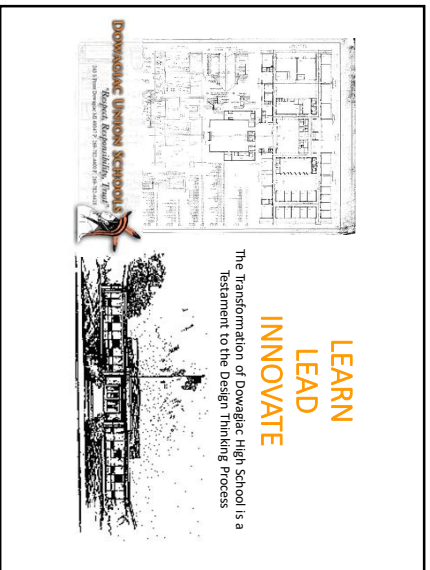
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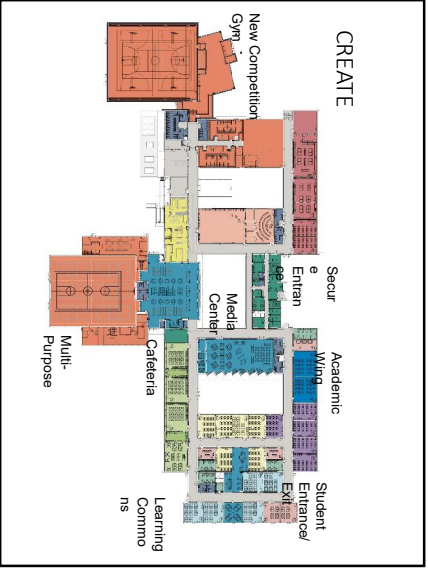
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LEAD

INNOVATE



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FLEXIBLE LEARNING STUDIOS

Existing 1958 Classrooms

Ideate

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### FLEXIBLE LEARNING STUDIOS

Existing Computer Lab



78 Windowless Classroom



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### INNOVATIVE SOLUTIONS



SCENARIOS  
100% Classroom Renovation  
DOWNGAC HIGH SCHOOL  
CLASSROOM - PLAN VIEW  
CONCEPT - RENOVATION | JANUARY 2017

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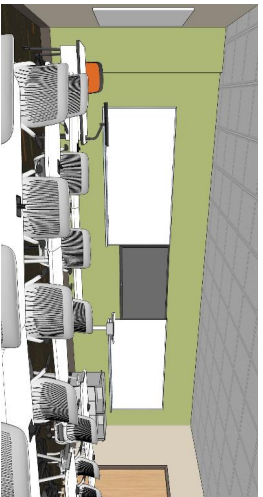
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SCENARIOS  
CLASS STAYS  
DOWNGAC HIGH SCHOOL  
CLASSROOM - PERSPECTIVE  
CONCEPT - RENOVATION | JANUARY 2017

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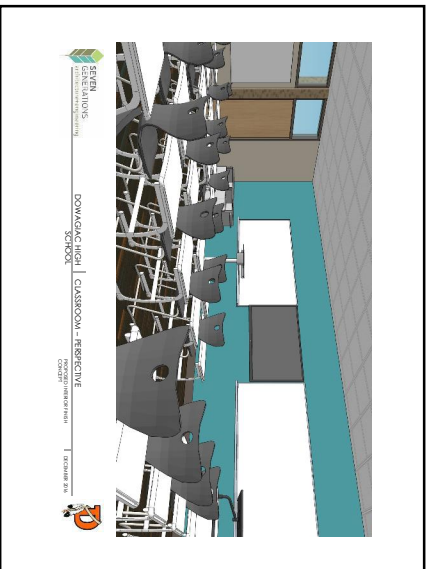
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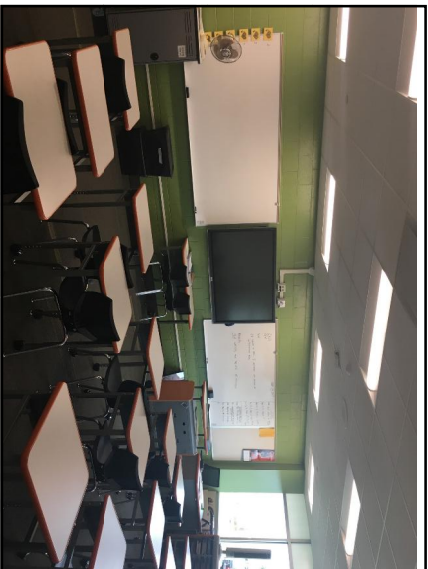
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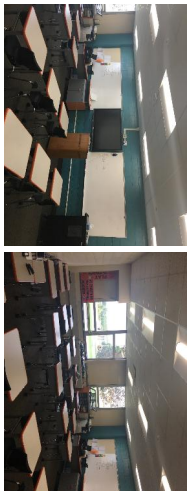
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### Learning Studios - Spring 2018



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### Learning Studio

### Teacher Planning



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### INNOVATIVE SOLUTIONS –MEDIA CENTER

#### Appendix B – Workshop Two – Sample Work 1

**4. Diagram How the New Space will Work**  
The diagram shows the layout of the new space, including the location of the Learning Studio, Teacher Planning, and the Media Center. It also includes a list of the new space's features, such as the Learning Studio, Teacher Planning, and the Media Center.

**5. Synthesize Concepts & Draw a Diagram – 10 minutes**  
The diagram shows the layout of the new space, including the location of the Learning Studio, Teacher Planning, and the Media Center. It also includes a list of the new space's features, such as the Learning Studio, Teacher Planning, and the Media Center.

**6. Group Share – Report, Discuss/Review & Capture – 14 minutes**  
The diagram shows the layout of the new space, including the location of the Learning Studio, Teacher Planning, and the Media Center. It also includes a list of the new space's features, such as the Learning Studio, Teacher Planning, and the Media Center.

**FINANCING PARTS**  
The diagram shows the layout of the new space, including the location of the Learning Studio, Teacher Planning, and the Media Center. It also includes a list of the new space's features, such as the Learning Studio, Teacher Planning, and the Media Center.

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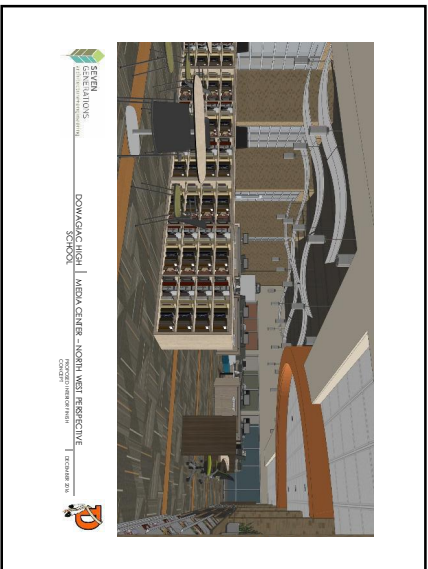
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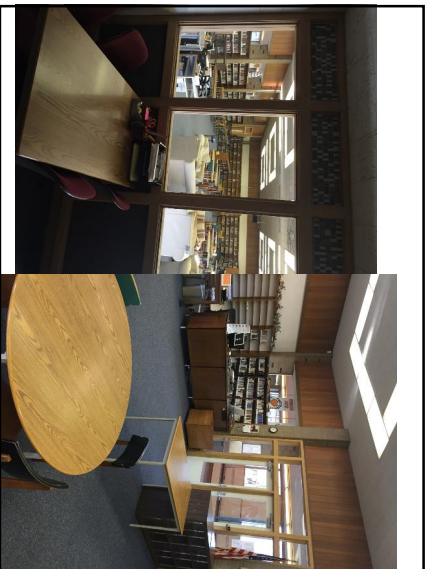
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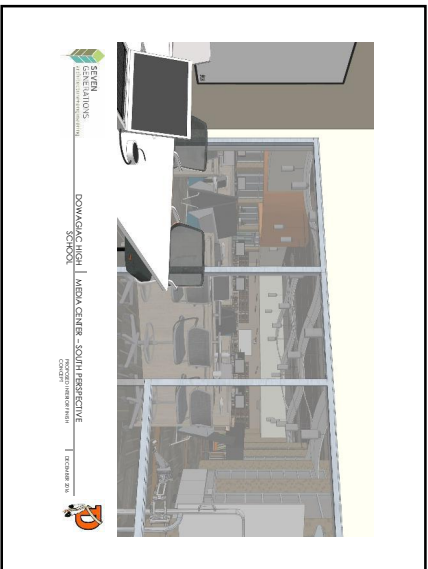
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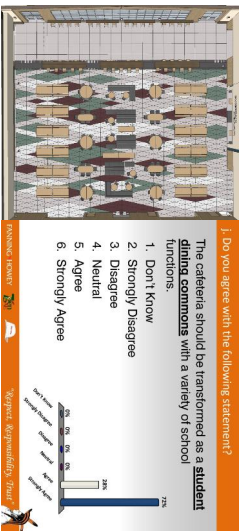
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INNOVATIVE SOLUTIONS - CAFETERIA



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SEVEN STAIRS  
100% Student Participation

DOWAGiac HIGH | CAFETERIA - WEST PERSPECTIVE

SCHOOL

COACH | MARKER HILL

100% Participation

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SEVEN STAIRS  
100% Student Participation

DOWAGiac HIGH | CAFETERIA - NORTH EAST PERSPECTIVE

SCHOOL

COACH | MARKER HILL

100% Participation

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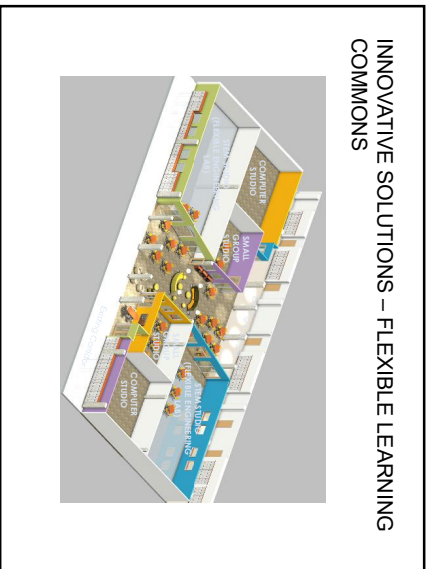
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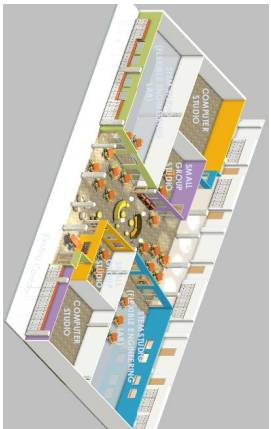
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### INNOVATIVE SOLUTIONS – FLEXIBLE LEARNING COMMONS



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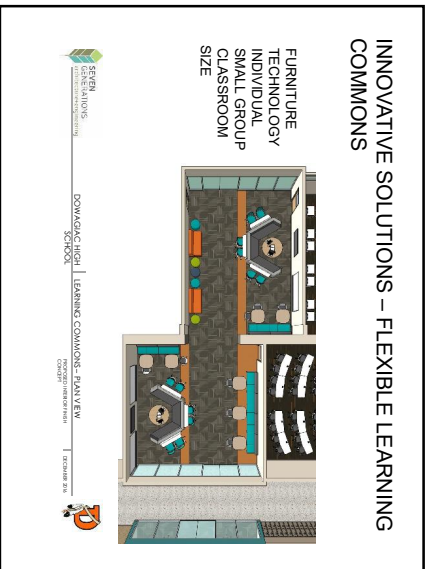
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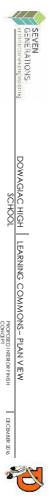
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### INNOVATIVE SOLUTIONS – FLEXIBLE LEARNING COMMONS



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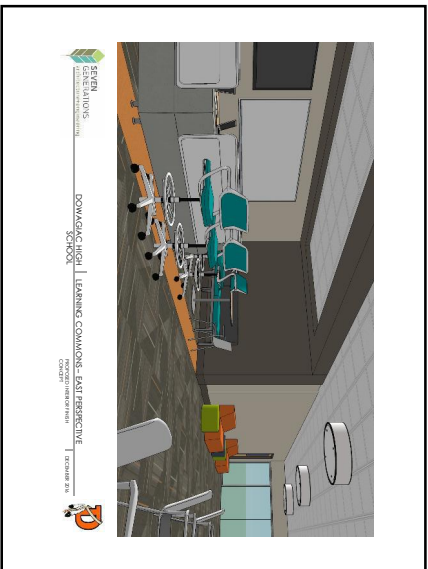
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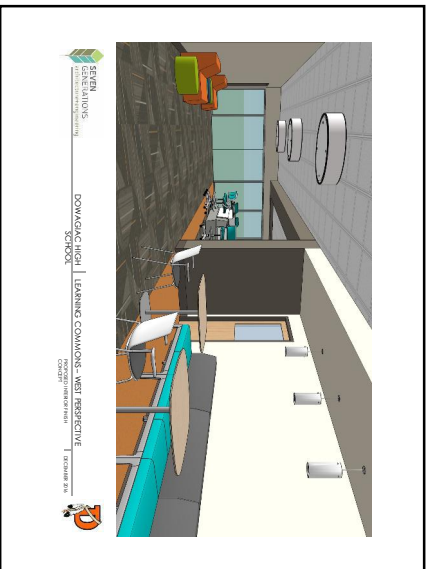
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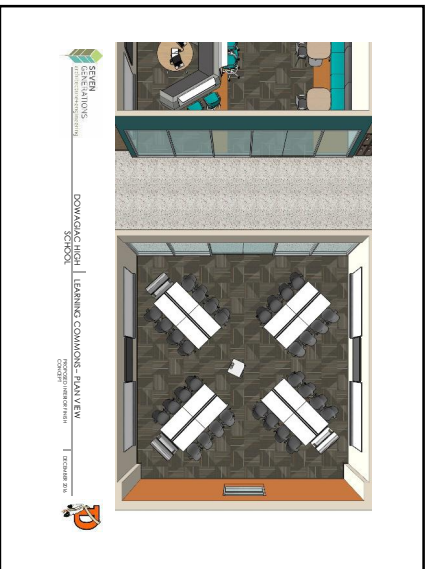
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**DESIGN THINKING BENEFITS**

- It is fast
- It educates
- It is creative
- It is collaborative
- It builds consensus
- It creates a sense of ownership

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