HACKING THE SCHOOL BUILDING

An innovator’s guide to future-ready learning environments

BLDD Architects, Inc.
Charles City Community Schools
WHAT'S THAT?!!
TRADITIONAL PLANNING FAILS

– Visits to new schools
  • Shopping for cars
  • Bigger better versions of old models

– Interviews
  • Limited value of input
  • Lost in translation

– Charrettes
  • Limited time to develop expectations
  • Chasm between what users THINK they want, and LEARNING what they want through experience
<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Organization</th>
</tr>
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<tbody>
<tr>
<td>Superintendent</td>
<td>Dr. Dan Cox</td>
<td>Charles City Schools</td>
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<tr>
<td>Middle School Teacher</td>
<td>Ryan Rahmiller</td>
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<td>Amanda Rahmiller</td>
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<tr>
<td>Architect</td>
<td>Jean Underwood, AIA</td>
<td>PK12 Design Expert</td>
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<tr>
<td>Architect</td>
<td>Sam Johnson, AIA, LEED AP, REFP</td>
<td>Principal</td>
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<td>LEED AP O + M Senior Associate</td>
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magnetic VISION

new APPROACH

freewill of TEACHERS
magnetic VISION
Dr. Dan Cox @DanCoxPhD · Nov 20
We can no longer want for our kids the same education that we ourselves had. #IASB14
This captures what I think of regarding 21st century schools:
• Lots of natural light
• Wide corridors that double as learning spaces
• Glass walls
• Exhibition space

Beyond the physical attributes, it’s also the focus on the design principles:
• Personalization
• adult world connection
• common intellectual mission
• teacher as designer

Dr. Dan Cox, Superintendent
Charles City Community Schools
new APPROACH
DESIGN THINKING PROCESS

EMPATHY
Learning about the audience for whom you are designing

DEFINE
Identify important functions based on your insights from the empathy stage

IDEATE
Brainstorming and coming up with creative solutions

PROTOTYPE
Building a representation of one or more of the ideas to show others

TEST
Returning to your original user group and testing your ideas for feedback

make space
How to set the stage for creative collaboration
State, Territory and Gdańsk Water carried out by David Kellie
think

BIG
BUILD
INNOVATE
GROW

EDUCATORS
as designers

VISIONING

PROTOTYPING
CO-Lecturers working with cohort of students
HOW DOES THAT REALLY WORK?

DOCENT

TEACHER
HOW DO YOU MAKE THE PROGRAM SO ENGAGING?
Teacher Video
TAKEAWAYS

• Teachers getting to observe other teachers and ask questions is a MUST!!!!
  – Send a “Frenchman to speak with the French”

• Discovery is more powerful than persuasion
  – “We’ve got to do things differently!”
    (Julie Holub exhorting her colleagues after touring SES and FAIR)
Teachers tour exemplar schools. Architects observe teachers. Ideation with teachers at Charles City (IA) Middle School.
AMANDA’S WANT LIST

Before HTH tour
• sink

After HTH tour
• Organizational Systems for Student Projects
• Display Options for Curated Student Work
• Industrial Tech Machinery and Space
• Lumber Yard
• Reconfigurable Stage
• Science Lab with Advanced Equipment
• Pond
• Rooftop Gardens
• Kitchen
LEARNING ENVIRONMENT DEFINED
IDEATION
How do you know which plan will work best for your students and faculty?
think BIG

• 3 Days
• 1 empty warehouse
• Raw materials
• 2 concepts
• Truly engaged students & faculty
News Video
TAKEAWAYS

• STUDENT PERSPECTIVE
  – Autonomy is a driver of student engagement
  – Whiteboards in work areas really help them become work areas

• TEACHER PERSPECTIVE
  – Breaking kids up and moving them helped them stay focused on their work
  – Having a stage or place to share, present, play, perform, film will create presentation and personal skills that will set the kids apart in the future
freewill of TEACHERS
SETTING THE STAGE FOR SUCCESS

• Professional development
• Trips to visit exemplar schools
Professional Development

Dr. Dan Cox @DanCoxPhD • Aug 14

Teaching and admins from @CharlesCityCSD and New Hampton learning PBL from @hightechhigh staff. #CCEdFuture #WeAreCC
Teachers from @hightechhigh work with @CharlesCityCSD teachers as if they are new HTH teachers. Getting ready to advance CC education.
How do students learn?
How the building works for us
Project Based Learning
Naomi Yaddof @nyaddof · Aug 30
Charles City 8th graders loving their new coding class! #collaboration #coding #STEM #MakeItHappenCC
Laying a foundation for PBL work: 8th grade students work cooperatively on a digital Escape Room! #MakeItHappenCC #teambuilding
Laying a foundation for PBL work: 8th grade students work cooperatively on a digital Escape Room! #MakeItHappenCC #teambuilding
Alyssa Kruger @akruger91 · Sep 8
When it’s too nice out to be inside, we read on the balcony. They were begging to do it again next week. #cultureofreaders #8thgradersdoread

Charles City Comets @CC_Comets · Jun 2
Last day at Charles City Middle School the balcony is used for learning. Build something to protect the egg from the fall. #EggDrop
You can walk through any grade and see students and teachers using this space the way it should be. It is all business! They are utilizing all areas of the building in their classes.
Student Video
WHOLE GROUP
Q & A
a magnetic VISION

a new APPROACH

the freewill of TEACHERS
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thank you

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