“HACK YOUR SCHOOL”

An innovator’s guide to future-focused facilities
“If I had asked people what they wanted, they would have said faster horses.”

- Henry Ford
WHO
WE ARE

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Agenda

A different approach

Real results

How to “HACK”
DIFFERENT APPROACH
• 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

• Admin led
  • Top down → no “buy in”
  • Lost opportunities
thinkBIG
BUILD INNOVATE GROW

EDUCATORS as designers

VISIONING

PROTOTYPING
SO, WHAT EXACTLY IS THINK BIG?

We work with stakeholders to harness the power of design thinking to uncover BIG ideas and new approaches for modern learning, with a focus on authentic user-participation. Together, we quickly explore possibilities and take them for a test drive, before construction.

1. **EMPATHIZE**
   - Classroom observations
   - Staff surveys
   - Exemplar visits

2. **DEFINE**
   - Collect common themes
   - Prioritize needs
   - State the problem

3. **IDEATE**
   - Involve teachers, students, and designers
   - Value diverse viewpoints

4. **PROTOTYPE**
   - Built with our “kit of parts”
   - Stage with furniture and technology

5. **TEST**
   - Hold classes in prototype
   - Let students and educators experiment and re-arrange
   - Gather feedback
Bringing new ideas to life is an essential part of what we do. The first versions are usually rough. They’re early proofs of concepts, ways of helping us explore, learn, and think. Usually, they’re far from pretty, and they may never work. They’re prototypes — not finished products.

— IDEO
SO, WHAT EXACTLY IS HACKING?
MAHOMET SEYMOUR HIGH SCHOOL

- Needed additional functional space
- Create a heart for the campus
- Improve stagnant atmosphere
- Niche.Com ranking facilities score low
Initial Solution (top-down)
EMPATHIZE

Understand the users’ perspectives, challenges and aspirations
hidden, dark, uninspired space

We only come here to print.
Interrogation rooms

Crowded cord jungle
EMPATHIZE

• Classroom observations
• Staff and student discussions
• Exemplar tours and discussions with other teachers
1: empathize
DEFINE

Describe the critical aspects of a successful solution
DEFINE

• Collect common themes
• Prioritize needs
• State the problem

Varied sized spaces for varied activities

A flow of acoustics/privacy

Destination space with MSHS identity

Technology driven

A resource space
IDEATE

Explore every idea, generating a wide range of potential solutions
• Involve teachers, students and designers
• Value diverse viewpoints
Prototype

Build a quick approximation of the preferred plan
THE HACK

• Built with “kit of parts”
• Try various layouts, furniture and technology
TEST

Understand what works and what doesn’t through authentic user feedback
• Hold classes in hacked space
• Let students and teachers experiment and rearrange
• Gather feedback
4: test
4: test
FEEDBACK

IT'S YOUR SPACE
KEEP CALM AND HACK ON

Giant lamp? UFO? Magnifying glass?

Dab worthy

This library is totally uncooked

This library is LIT

RAW!!!

New book shelves
What we learned from the “HACK”

- Students are surprisingly practical!
- Students are as thoughtful as adults
- The process transformed both students’ and teachers’ existing perceptions of the purpose of the space
- Experiencing the prototype allowed for a rapid adoption of a more creative solution.
- Choice and flexibility were key components/assets to a successful design
real

RESULTS
previously proposed library floor plan

after: final library floor plan

our prototype "hack" library floor plan

booth seating

mobile book shelves

small group

cafe

large conference

fixed book storage

storage

circulation desk

library entry

maker space

high-tech instructional space

flexible seating options
FEEDBACK FROM HACK:
Improve circulation around the newly formed library main entry.

By removing two walls and setting the auditorium entry back, fluid student circulation was provided while creating a “front porch” area outside of the reinvented library space.

This space houses a physical “home page” for the school, with a touch screen monitor that displays school events and announcements.
Student and faculty feedback from the tested prototype was incorporated into the final design.
Fixed book stacks which limited the use of the space were replaced with MOVABLE and RECONFIGURABLE bookcases.
Ensuring that power was dispersed throughout the space allowed students to utilize the entire space, CREATING A HUB.
Variety of furniture and seating allows for **FLEXIBILITY** for individual and group work.
• Dramatically increased utilization of the space.
• Created a social hub/destination. A new "heart" for the campus.
• Non-traditional furnishings may be the most appealing to students.
• By insuring that power is dispersed throughout the space, allowed students to utilize the entire space.
• Use of space by curricular instructors has increased.
• Students WANT to be in the space.
how to “HACK”
How to “HACK”

Partial rough walls
Stage with furniture
Stage with technology
Create feedback opportunities
DETERMINE LENGTH OF TIME FOR PROTOTYPING
2-3 days
3-4 weeks
months
semester
school year

EXPLORE ALTERNATIVE PROTOTYPING STRATEGIES
Virtual Reality Models
“Hacking” existing space for use as a prototype
Offsite warehouse as prototype location

ESTABLISH STUDENT EDUCATION COMPONENTS
Education
Engagement
Ownership

DETERMINE SYNERGY WITH CURRICULUM
Identify programs that will use prototype spaces and customize as desired.
Assist administration with communication to staff

DETERMINE PROTOTYPING CONSTRUCTION CONVENTION
Determine level of “finish”
• “crude or rough” to “finished construction”
Determine major structural elements and prototyping conventions
Determine staging required

DETERMINE WORKFORCE NEEDED
Contractors (if any)
Architect as installer
District staff

OBTAIN VENDOR COMMITMENT
Furnishings Vendors
Technology Providers
Finish Vendors and materials

ESTABLISH PROTOTYPE BUDGET, SCHEDULE, AND REGULATORY REQUIREMENTS
Prototype materials: architect furnished vs. purchased
Furnishings: staging provided vs. purchased
Technology: vendor provided vs. purchased
Determine code requirements and submittals
Create logistics plan: pre-prototype work, contractor modification of existing construction, prototype installation, testing duration, tear down and new prototype installation

ESTABLISH EVIDENCE BASED DESIGN PROTOCOL
Define evidence based design goals and objectives
Find sources of relevant evidence
Critically interpret relevant evidence from:
• stakeholder interviews
• learning activity observations
• exemplar tours
Create and innovate (evidence based design concepts)
Develop a hypothesis
Collect baseline performance measures
Monitor implementation
Measure post occupancy performance results
KIT OF PARTS

WALLS - FRAMING
80/20 extruded aluminum framing
2x4 wood framing
Wood storage shelf framing

WALLS - SURFACE
Black mesh tarps
Plastic sheeting
Melamine panel boards
Fabric

LIGHTING
Clip on shop lights
Mini spotlights
Sample lighting from vendor partners

FURNITURE
Vendor partner provided
Architect provided
  • Wobble stools
  • Portable tables
  • Stacking chairs
Pilot program purchases
Owner provided existing
Boxes and temporary improvised pieces

FLOORING
Carpet tile
Broadloom carpet with professional installation
Paints or coatings

EQUIPMENT
Mobile Markerboards
Melamine panel boards
Portable shelving
Portable work tables
Portable storage units
Laminate countertop with support brackets

TECHNOLOGY
Vendor partner provided
Owner provided

LABOR
Architect
Students
Local volunteers
District staff
Contractors

FEEDBACK
Markerboards
posters
Butcher paper
Post it notes
QR code / Google Survey
Website
Survey monkey

INFRASTRUCTURE
Power
  • Extension cords
  • Contractor
  • District staff
Data
  • Contractor
  • District staff

OTHER
Bungee cords
Duct tape
Zip ties
Power tools
Hand tools
Painters tape
Paint / Marker Board paint
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thank you!