Educational Visioning
Elementary Schools

Northbridge Public Schools
Northbridge, MA

August 2017
Frank Locker Educational Planning

Contents + Acknowledgements

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ACKNOWLEDGEMENTS

Visioning Team

TEACHERS/STAFF

Kerin Buma	2nd Grade Teacher, BES
Renee Costello	Pre-K Instructional Assistant
Karen Demeritt	1st Grade Teacher, BES
Lisa Gogolinski	Technology Teacher/NMS
Lori Hippert	Instructional Technology Specialist, BES
Michelle Muscatell	Librarian, BES
Jill Redding	1st Grade Teacher, BES
Jenne Siemaszko	4th Grade Teacher, BES
Christine Simoneau	2-4 Art Teacher, BES
Tara Zelano	4th Grade Teacher, BES

BUILDING LEADERSHIP

Theresa Gould	Assistant Principal, BES
Jill Healy	Principal, NES
Karlene Ross	Principal, BES
John Zywien	Principal, NMS

DISTRICT LEADERSHIP

Kathleen Perry	Director of Pupil Personnel Services
Dr Catherine Stickney	Superintendent

SCHOOL COMMITTEE/ SCHOOL BUILDING COMMITTEE

Joe Strazzula	School Building Committee Chairman

STUDENTS

Madi Ireland	High School Student
Liam Simoneau	8th Grade Student

COMMUNITY

Joan Chase	Parent
Laura Hanny	Resident
Emily Murray	Committee Member/ Beginning Bridges CFCE

Architect

DORE & WHITTIER

Jason Boone	Facility Planner
Lee Dore	Partner in Charge
Tom Hengelsberg	Project Manager
Don Walter	Partner

Owner's Project Manager

SMMA SYMMES MAINI McKEE ASSOCIATES

Joel Seeley	Project Manager

Educational Planner

FRANK LOCKER EDUCATIONAL PLANNING

306c Dover Point Rd
Dover NH 03820
617.412.7444
www.franklocker.com

Dr Frank Locker

Executive Summary

INTRODUCTION

This Educational Vision reflects the work of a Visioning Team; approximately 30 teachers, administrators, students, parents, community, and school committee members, plus the architects and owner's project manager. Created in three days of intense facilitated workshops it is intended to guide the long-term development of both education and facilities for the future elementary schools.

EDUCATIONAL VISION

Guiding Principles

The *Guiding Principles* presented here were created to express the values, beliefs, and concepts developed by the educator and community Visioning Teams which examined educational trends, best practices, and issues affecting the delivery of 21st century education. These *Guiding Principles* present the essence of that inquiry. They are not policy but they address the overarching themes identified by participants. They may serve as a foundation for the future schools. As such, they are intended to form the basis of future educational delivery and facilities planning. Staff professional development is crucial to the successful implementation of the educational concepts outlined here.

OVERARCHING PRINCIPLES

- This future-oriented Educational Vision incorporates a number of innovative best and next educational practices already in operation in classrooms in the Northbridge elementary schools. Extend those practices
- Create a common understanding of this Educational Vision among administrators, faculty, parents, and students to continue shifting the educational model from one that is fairly traditional to one that is more transformed
- Prepare students for success in the 21st century, an emerging world of global competition, uncertain employment prospects, infinite access to information, and rapid change in technology

- Teach 21st century skills at the same time as traditional content
- Build relationships with students, families, and communities through school structure and programs
- Aspire beyond the Common Core and beyond the Massachusetts Department of Elementary and Secondary Education (DESE) guidelines to do what is best for student learning, and to instill a life-long sense of wonder and purpose. Create independent, life-long learners
- Establish a program of staff Professional Development to support the educational deliveries outlined here

The full Guiding Principles are expressed in full in Ch 3, Educational Vision.

Learning Modalities

The Community Visioning Team members identified these as the most effective ways for students to learn:

- Small Group Work/Student Collaboration
- Project-Based Learning
- Interdisciplinary Learning

- Social/Emotional Learning
- Teacher Teams/ Synchronous Collaboration
- Integrate Arts in Core

School Structure

INTERNAL ORGANIZATION

- Ideally teachers would be paired, working in adjacent, linked classrooms, sometimes teaching alone, other times swapping specialties and at other times teaching simultaneously
- Lower Grades:
  - Choice of looping, traditional, or multi-grade
  - Multi-age classroom groupings
- Upper Grades:
  - Thematic Vertical
  - Multi-grade
  - Looping
  - Teachers "teaming," sharing students but separately teaching curriculum specialties

These most favored organizational structures call for the nature of school and role of teachers to be significantly changed.

SCHOOL STRUCTURE

The Visioning Team identified developmental ages of students and projected the most appropriate grade groupings to best serve them.

Participants identified preferred grade groupings and enrollment size to best serve the elementary years. All four Table Teams endorsed the 1030 student, PK-5 school option.

This strong sanction considers these issues:

- There is great concern for the number of transitions a student has to make in a PK-12 career
- Longer durations in a building build stronger relationships between teachers and students, and between teachers and families
- The larger building is recognized as offering greater operational efficiencies and less annual cost
- The full continuity of elementary grades in the PK-5 building will offer greater curriculum delivery continuity and consistency
  - Including Special Education services
- Simplified transportation
- Brings facility and program delivery equity to all Northbridge Public Schools students

See Educational Vision Ch 3 for details.

FACILITY CONCEPTS

Places for Learning

The Visioning Team reviewed 13 exemplar schools from the USA, the United Kingdom, and Australia. for the future teaching and learning at Northbridge elementary schools.

Essential characteristics of desired core learning spaces are:

- Learning spaces arranged as Small Learning Communities
- Classrooms are components of "suites of spaces," supported by other spaces immediately adjacent
- Circulation to be used for learning
- Classrooms are to be flexible, interconnected, and supported by auxiliary spaces including Extended Learning/ Collaboration/ Breakout/ Commons spaces
- Interdisciplinary possibilities
- Open, shared presentation areas, appropriate for student presentations and ad-hoc meetings
- Variety of furnishings, offering students and teachers more choices in supporting learning
- Possibility of student groups working in multiple places under the guidance of their teacher
- Teacher collaboration supported by the facilities, through double sized Classrooms, connections between Classrooms and strategic placement of related functions
- Teacher Planning Centers to support teacher collaboration and sense of community

For a full description of the most appropriate and least appropriate exemplars, with illustrations, see Ch 4 Facility Concepts.

Overall School Organization Diagram

Workshop participants developed a concept diagram for a PK-5 school for 1030 students, as that was the most preferred grade grouping and school enrollment size.

It featured the following essential characteristics:

OVERALL

- Possibly create separate entries for PK-2 and 3-5 portions of the school
- Possibly ease access and express the importance of community use of the building through a separate entry to a public zone
- Create distinct zones for Grades PK-2 and 3-5
- Pre-K to be related to K-2 but distinct
- Create reasonable passage from one to the other to support:
  - Teacher collaboration in shared Teacher Planning Centers
  - Movement of specialist educators who might be serving all grades

SECURE ZONE

Easily accessible from Both PK-2 and 3-5

- Music
- Art
- English as a Second Language spaces
- Media Center/ Learning Commons
- Special Education substantially separate spaces

Separate in each

- Small Learning Communities
  - Core learning spaces
  - Breakout/Collaboration/Extended Learning Areas
  - Maker spaces
  - Teacher Collaboration Centers
  - Presentation Space
- Administration Office
- Guidance Office
- Special Education inclusion spaces
- Toilets
  - In Classrooms in lower grades
  - In Small Learning Communities in upper grades
- Outdoor learning spaces

COMMUNITY USE ZONE

- Gatekeeper/security office as entry to Secure Zones
- Cafeteria/Commons/Food Courts:
  - Multiple food source stations
  - Flow through
  - Stage
- Gymnasiums
- Stage in Cafeteria(s)

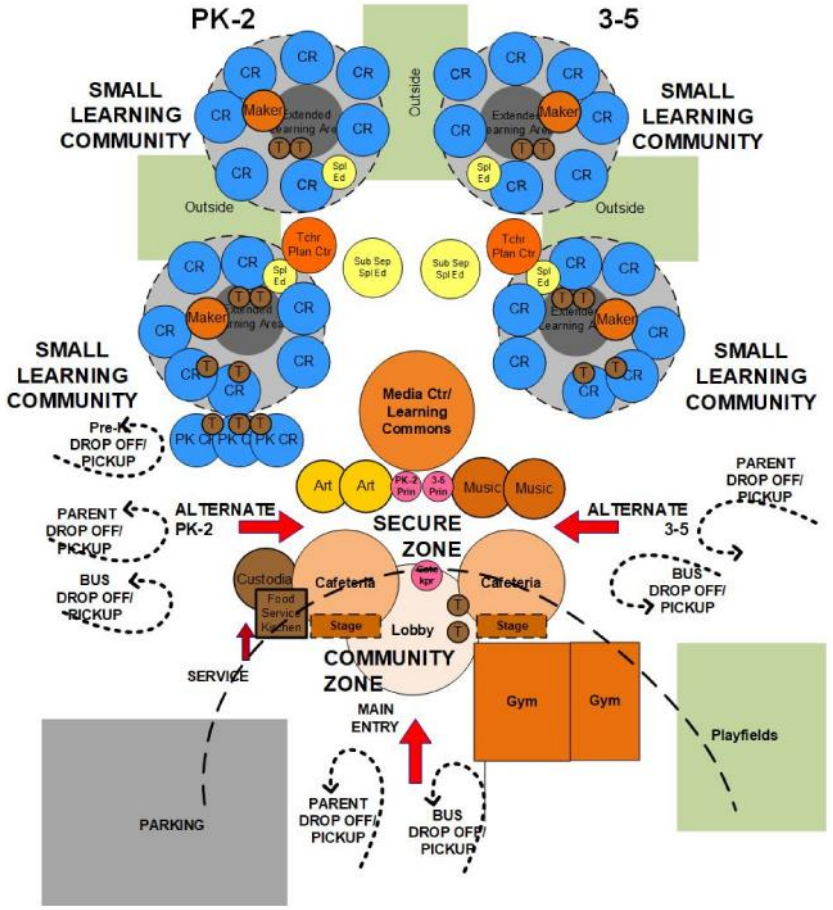
EXTERIOR FUNCTIONS

- Parking

- Visitors/Community
- Faculty and staff

- Drop off/pick up
  - Bus drop off/pick up separate from parent drop off/pick up
  - Separate for Pre-Kindergarten
  - Alternate: separate for Grades K-2 and Grades 3-5
- Playfields accessible from Gym

The overall diagram is shown here:



NORTHBRIDGE PK-5 SCHOOL
Relationship concept.
Not all spaces shown.
Number of Classrooms not determined.

Educational Vision

INTRODUCTION

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Much of the work was conducted by Table Teams, small groupings of six participants each. They brainstormed, debated, and attempted to reach consensus on most of the defining issues. Each Table Team had educators, students, parents, and community members evenly distributed to the greatest extent possible.

VISION COMPONENTS

The Educational Vision for the Northbridge elementary schools is described here through several components:

- **Guiding Principles** establish broad parameters for educational delivery, school structure, and facilities
- **School Transformation + Development Map** (ST+DM © 2017 Frank Locker Inc) relates educational delivery and facilities to national practices, both today and projected into the future
- **Most Important Concepts for the Future** identifies the best and next practices most important for future teaching and learning
- **Learning Modalities** identifies the most effective and appropriate ways for teachers to reach students with curriculum delivery
- **Innovative Educational Deliveries** focuses on the appropriateness of adopting new and challenging educational practices
- **School Structure** defines preferred approaches to the overall relationships of people and programs, including grade groupings and school enrollment size

GUIDING PRINCIPLES

The *Guiding Principles* presented here were created to express the values, beliefs, and concepts developed by the educator and community Visioning Teams which examined educational trends, best practices, and issues affecting the delivery of 21st century education. These *Guiding Principles* present the essence of that inquiry. They are not policy but they address the overarching themes identified by participants. They may serve as a foundation for the future schools. As such, they are intended to form the basis of future educational delivery and facilities planning. Staff professional development is crucial to the successful implementation of the educational concepts outlined here.

The *Guiding Principles* are:

Overarching Principles

- This future-oriented Educational Vision incorporates a number of innovative best and next educational practices already in operation in classrooms in the Northbridge elementary schools. Extend those practices
- Create a common understanding of this Educational Vision among administrators, faculty, parents, and students to continue shifting the educational model from one that is fairly traditional to one that is more transformed
- Prepare students for success in the 21st century, an emerging world of global competition, uncertain employment prospects, infinite access to information, and rapid change in technology
- Teach 21st century skills at the same time as traditional content
- Build relationships with students, families, and communities through school structure and programs
- Aspire beyond the Common Core and beyond the Massachusetts Department of Elementary and Secondary Education (DESE) guidelines to do what is best for student learning, and to instill a life-long sense of wonder and purpose. Create independent, life-long learners
- Establish a program of staff Professional Development to support the educational deliveries outlined here

Educational Delivery

Educational Delivery addresses overarching themes required to provide a 21st century high-performing educational experience for all elementary students.

INSTRUCTIONAL MODELS

- Develop a social/emotional learning initiative
- Employ project-based learning on a regular basis
- Group students in small learning teams to differentiate instruction and foster communication, collaboration, and improved social skills, and foster differentiated instruction
- Organize teachers in teaching teams
    - Explore multi-grade instruction
    - Teachers “teaming,” sharing students but separately teaching curriculum specialties, particularly in the upper grades
- Explore thematic learning, allowing student/parent choice of interest area, with the complete curriculum wrapped around that interest
- Create a school and community culture that values flexibility for change
- Position students to learn 21st century skills, especially the “four C’s”, collaboration, communication, creativity, and critical thinking, while simultaneously meeting standard curriculum goals
- Pilot innovative deliveries such as making things to learn for planned future large scale implementation

TECHNOLOGY INTEGRATION

Our world is dependent on technology implementation in all aspects of life. Students must be provided with the technological skills and knowledge which will enable them to function successfully in a global context. Technology should include:

- Recognize computer technology can be more effective than a teacher in recognizing individual students’ learning patterns and style preferences; utilize computers as part of a strategic initiative to personalize learning
- Wireless capability in all spaces in future school building(s)
- Deploy mobile devices in lieu of desktop devices

- Create places and learning goals for students to learn using new technology, including documentation of oral presentations, and the production of videos, story boards, and apps

Technology must not be viewed as a curriculum add-on, but, rather as an effective tool to be utilized in meaningful instruction that is relevant and rigorous.

Educational Structure

Educational Structure establishes the organizational patterns necessary to group students and teachers in the most effective ways.

ORGANIZATION

- Advocate for the PK-5, 1030 student school Option, as it will offer more effective, efficient operations, increased curriculum articulation, and stronger relationships among both teachers and students
- Position educators to better know their students through the size and strategic placement of learning spaces

RELATIONSHIPS

- Organize school as Small Learning Communities to support formation of relationships
- Support teachers who wish to loop with their students
- Foster student collaboration to build social and communication skills, and the ability to work with others
- Create opportunities for students to grow socially and emotionally while working with others in classroom assignments

CURRICULUM

- Build 21st century skills while meeting traditional curriculum goals
- Create regular opportunities for students to improve their oral communication skills

SCHEDULES

- Create common planning time for all teachers
- Institute strategic scheduling changes to empower the concepts outlined in this Vision. The school schedules must provide for flexibility and collaboration

Facility Implications

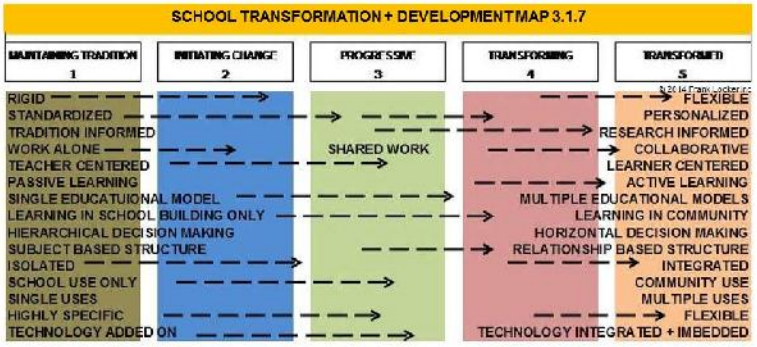
- The preferred planning Option is the 1030 student PK-5 school
- Design facilities to be flexible, able to support multiple learning modalities, teaching styles, and program change over time
- Empower the possibility of multi-grade learning through connections between Classrooms
- Develop Small Learning Communities, learning spaces arranged in clusters
- Select furniture that supports collaboration, different learning modalities, and is substantiated by brain research
- Create Teacher Planning Centers to foster collaboration, interdisciplinary teaching, and greater knowing of students by teachers
- Create building plans that offer security and safety despite constant visitors, many of whom will be active participants in student learning
- Create spaces that support more “hands-on” learning, including STEM and STEAM labs and Maker Spaces
- Integrate outdoor learning and recreation spaces in the building designs
- Create presentation spaces to honor and encourage frequent student and expert visitor presentations
- Minimize circulation spaces that do not also offer opportunities for learning, such as Breakout/ Collaboration small group spaces

SCHOOL TRANSFORMATION + DEVELOPMENT MAP

Workshop participants, working in three-person Micro Teams, used the School Transformation + Development Map to evaluate the elementary schools' current educational delivery and facilities, and to project the desired future for both.

The ST+DM expresses the evolutionary shift in education in great detail, chronicling educational practices and facility design. Schools today are in different points of evolution, and many schools expect to be in different points of evolution in the long-term future. The ST+DM characterizes schools and facilities on a 1 through 5 basis, with 1 as the most traditional category, and 5 as the most transformed.

SCHOOL TRANSFORMATION + DEVELOPMENT MAP



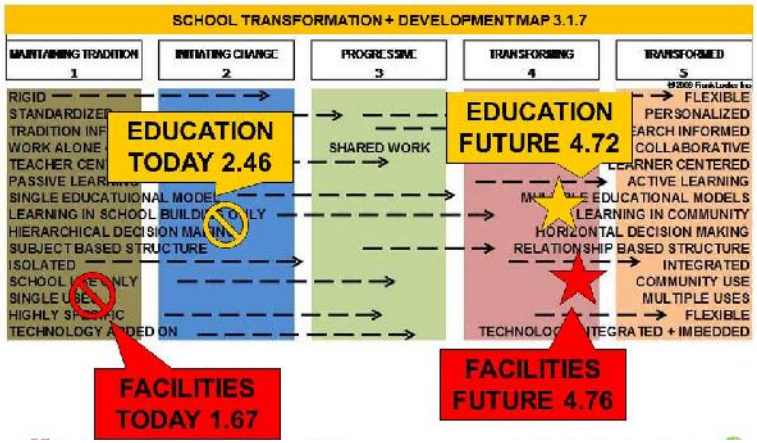
Workshop participants worked in Micro Teams to review the multiple educational practices and facilities concepts in the School Transformation + Development Map. They scored their schools in the following categories:

- Educational Delivery Today
- Facilities Today
- Future Educational Delivery
- Future Facilities

This average score gives a general understanding of current and desired future practices and facilities. The average overall score of all Micro Teams was:

SCHOOL TRANSFORMATION + DEVELOPMENT MAP

Overall average



The overall scoring of all Micro Teams was relatively close for Education and Facilities, both Now and the Future, indicating a high degree of consensus among workshop participants.

The most important lessons from the ST+DM for the immediate future come from the difference between today's situation and the desired future. Overall, the Visioning Team desires significant changes for education, 2-1/4 columns out of five. Desired facilities changes are even greater, three columns.

For education this means that a program of staff professional development needs to be implemented, starting soon. For facilities, it means that facilities will not look like traditional school. In both cases dialogue with the community needs to be engaged in order to share and receive comment and guidance on the exciting concepts proposed for the future schools.

MOST IMPORTANT CONCEPTS FOR THE FUTURE

Visioning Team members were asked to identify the most important issues for education and facilities in future Northbridge elementary schools.

The results are outlined here, in order of importance based on frequency of citing:

EDUCATION

- Emotional Intelligence
- Project Based Learning
- STEM/ STEAM programs

In Table Team discussions they added:

- Creating Innovators
- Multiple Intelligences

FACILITIES

- Flexible, Varied, Brain-Based Furniture
- Small Learning Communities
- Empower Student Collaboration

Note that these concepts, collectively, call for a major shift in both educational deliveries and the facilities that support them. Curriculum requirements and standards will remain, but the nature of teacher roles and student activities will change.

LEARNING MODALITIES

Visioning Team members considered 21 learning modalities, ranging from traditional lecturing and direct teaching to independent study, and ranked them in order of appropriateness.

The most commonly cited most effective modalities, in order of importance, are:

- Small Group Work/Student Collaboration
- Project-Based Learning
- Interdisciplinary Learning
- Social/Emotional Learning
- Teacher Teams/ Synchronous Collaboration
- Integrate Arts in Core

The most commonly cited as least effective modalities were:

- Lecture
- Internships
- Desktop technology

INNOVATIVE EDUCATIONAL DELIVERIES

Participants in the Educators Workshop explored three innovative educational practices and assessed their viability for adoption at the elementary schools. Their thoughts were:

- Project Based Learning:
  - Enthusiastically supported by the one Table Team that explored it
  - On the 10 point Engagement Scale, Project Based Learning was ranked 11
- Making Things to Learn:
  - Supported with enthusiasm by both Table Teams that explored it
  - On the 10 point Engagement Scale, Making Things was ranked 10by both teams
- Mastery Learning/Adaptive Learning:
  - Cautious interest by the one Table Team that explored it

SCHOOL STRUCTURE

Internal Organization

Visioning Team members reflected on model school organizational structures, and determined these to be the most and least appropriate structures for the elementary years:

Most appropriate:

- Ideally teachers would be paired, working in adjacent, linked classrooms, sometimes teaching alone, other times swapping specialties and at other times teaching simultaneously
- Lower Grades:
  - Choice of looping, traditional, or multi-grade
  - Multi-age classroom groupings
- Upper Grades:
  - Thematic Vertical
  - Multi-grade
  - Looping
  - Teachers "teaming," sharing students but separately teaching curriculum specialties

Least appropriate:

- Synchronous teacher teaming, sharing students in real time

These most favored organizational structures call for the nature of school and role of teachers to be significantly changed.

All preferred organizations would have teachers team teaching in various ways.

Continued dialogues among educators need to start district-wide as soon as possible, extending to parents and students, to explore, share, and deploy these concepts.

School Structure

Visioning participants identified these as the developmental breaks in the PK-12 spectrum.

- PK K 1 2 / 3 4 5 / 6 7 8 / 9 10 11 12
- PK K / 1 2 / 3 4 5 / 6 7 8 / 9 10 11 12
- PK / K 1 / 2 3 / 4 5 / 6 7 8 / 9 10 11 12
- PK / K 1 2 / 3 4 5 : 6 7 8 : 9 10 11 12

Participants identified preferred grade groupings and enrollment size to best serve the elementary years. All four Table Teams endorsed the 1030 student, PK-5 school option.

This strong sanction considers these issues:

- There is great concern for the number of transitions a student has to make in a PK-12 career
- Longer durations in a building build stronger relationships between teachers and students, and between teachers and families
- The larger building is recognized as offering greater operational efficiencies and less annual cost
- The full continuity of elementary grades in the PK-5 building will offer greater curriculum delivery continuity and consistency
  - Including Special Education services
- Simplified transportation
- Brings facility and program delivery equity to all Northbridge Public Schools students

Facility Concepts

INTRODUCTION

The Visioning Team developed concepts for Northbridge's elementary schools' future facilities. The concepts are defined through:

- **Key Words**, expressing key characteristics of future education and facilities
- **Places for Learning,** detailed descriptions of the learning environments
- **Defined Spaces,** expressing desired characteristics of the most important non-classroom spaces
- **Future Furniture** showing favored furniture selections
- **Community + Family,** outlining concepts for greater service to families and the community
- **Overall School Organization Diagram**, shows essential program space relationships for a co-located high/middle school

PLACES FOR LEARNING

The Visioning Team reviewed thirteen exemplar schools from the USA, the United Kingdom, and Australia. Working in Table Teams they ranked the schools for appropriateness for the future teaching and learning at Northbridge elementary schools.

MOST APPROPRIATE

Several exemplars were highly favored, selected by multiple Table Teams as most appropriate. They were:

- Forest Avenue K-2 Center (cited by 3 of 3 Table Teams)
- New Albany Grade 1-8 School (cited by 2 of 3 Table Teams)

LEAST APPROPRIATE

One exemplar was deemed Least Appropriate. Significantly this choice represented the most traditional educational deliveries, and is most similar to the current elementary schools.

Minges Brook Elementary School, the most traditional of the choices, was cited by all 3 Table Teams as Least Appropriate.

ESSENTIAL CHARACTERISTICS
Most of the schools cited as most appropriate shared these characteristics:

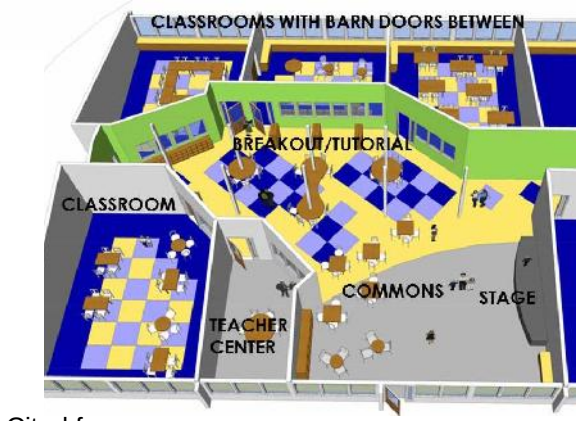
- Learning spaces arranged as Small Learning Communities
- Classrooms are components of "suites of spaces," supported by other spaces immediately adjacent
- Circulation to be used for learning
- Classrooms are to be flexible, interconnected, and supported by auxiliary spaces including Extended Learning/ Collaboration/ Breakout/ Commons spaces
- Interdisciplinary possibilities
- Open, shared presentation areas, appropriate for student presentations and ad-hoc meetings
- Variety of furnishings, offering students and teachers more choices in supporting learning
- Possibility of student groups working in multiple places under the guidance of their teacher
- Teacher collaboration supported by the facilities, through double sized Classrooms, connections between Classrooms and strategic placement of related functions
- Teacher Planning Centers to support teacher collaboration and sense of community

Most Appropriate Planning Concepts

Here are representative photos, descriptions, and Table Team comments for the most commonly cited exemplar schools.

FOREST AVENUE K-2 CENTER
Cited by 3 of 3 Table Teams
Featuring:

- Classrooms arranged around a shared Breakout/Commons/Tutorial/project space
- Stage in this space
- Barn door connections between classrooms
- Teacher Planning Center
- Glass between rooms gives teachers overview and control no matter where students are learning



Cited for:

- Community feel
- Teacher planning
- Platform for presentations and performances
- Flexibility of size/configuration of classrooms
- Access to commons/presentation space
- Shared access to resource "rich" spaces
- PK/K individual bathrooms; 1-5 group bathrooms
- Gender neutral bathrooms in SLC
- Equity of access to outdoor space
- SLC: teacher collaboration/planning space
- Universal/ADA playgrounds "inclusive"
- Transparency of/through spaces
- Location of playgrounds to core and classrooms relating to scheduling
- Variety of use of space
- Like teacher center
- Like suite idea: 100 kids, 4-5 teachers
- Successful outcomes, proven

NEW ALBANY GRADE 1-8 SCHOOL
Cited by 2 of 3 Table Teams
Featuring:

- Large number of Classrooms (12) arranged in Small Learning Communities (SLCs)
- Classrooms arranged around a Breakout/Commons space
- Classrooms are not identical

- Varieties of folding walls between some of them
- Many have garage doors to the Breakout/Commons space

- Classroom positioning is not identical
  - Some are central and highly connected to the Breakout/Commons space
  - Others are at the edges, less connected
- Teacher Planning Center located in a strategic position at the center of each SLC
- Small, low Stage located in a paramount position in each SLC
- Conference/Small Group Room located between the Stage and Teacher Planning Center

Table Team comments:

- Community feel
- Individual classrooms with some folding walls
- Multiple learning environments
- Flexibility of size/configuration of classrooms
- Access to commons/presentation space
- Shared access to resource “rich’ spaces
- PK/K individual bathrooms; 1-5 group bathrooms
- Gender neutral bathrooms in SLC
- Equity of access to outdoor space
- SLC: teacher collaboration/planning space
- Universal/ADA playgrounds “inclusive”
- Transparency of/through spaces
- Location of playgrounds to core and classrooms relating to scheduling

Least Appropriate Planning Concept

MINGES BROOK ELEMENTARY SCHOOL
Cited by 3 of 3 Table Teams
Featuring:

- Challenging separations between learning spaces
- Isolated Classrooms
- No central focus

Table Team comments included:

- Too traditional
- Too stark
- Where are the resources?
- What we have now
- Why no collaboration/teacher alcove
- Why no visibility to rooms
- Why administration not at front entry for security
- Not a lot of opportunity for collaboration
- Self-contained with no sharing

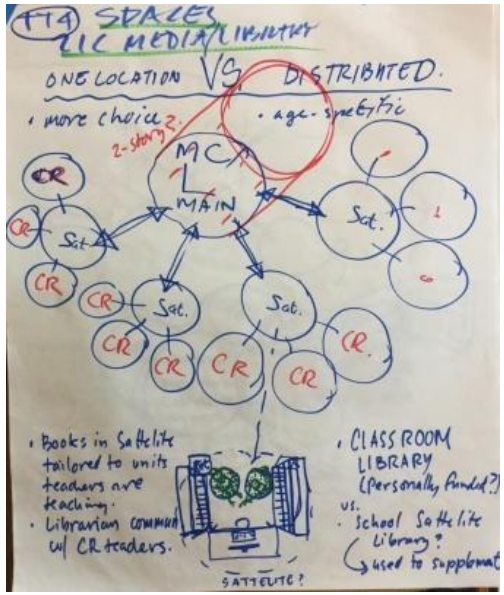
DEFINED SPACES

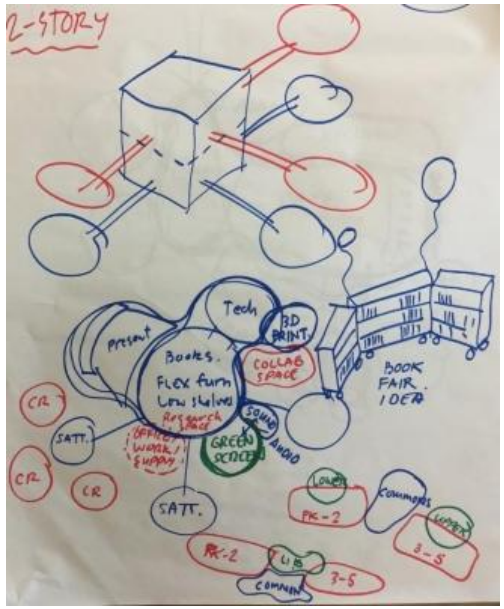
Essential non-classroom spaces were given consideration by the Table Teams. The outlines below represent the most salient concepts.

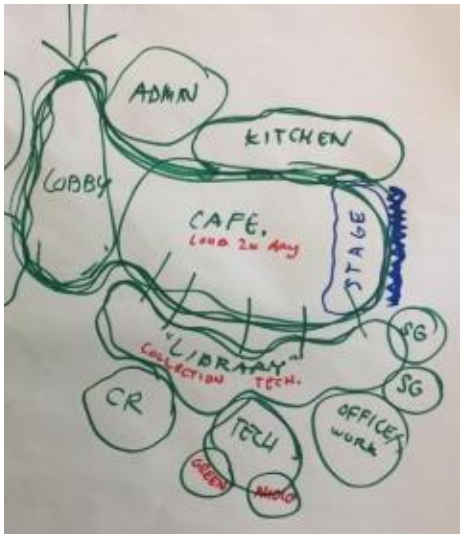
21st CENTURY MEDIA CENTER/ LEARNING COMMONS
Table Team 1

The concept included:

- If one location: more choice
- If distributed, age-specific
  - Books in satellite tailored to units teachers are teaching
  - Librarian communicates with classroom teachers
  - Classroom libraries usually personally funded, replaced by satellite library

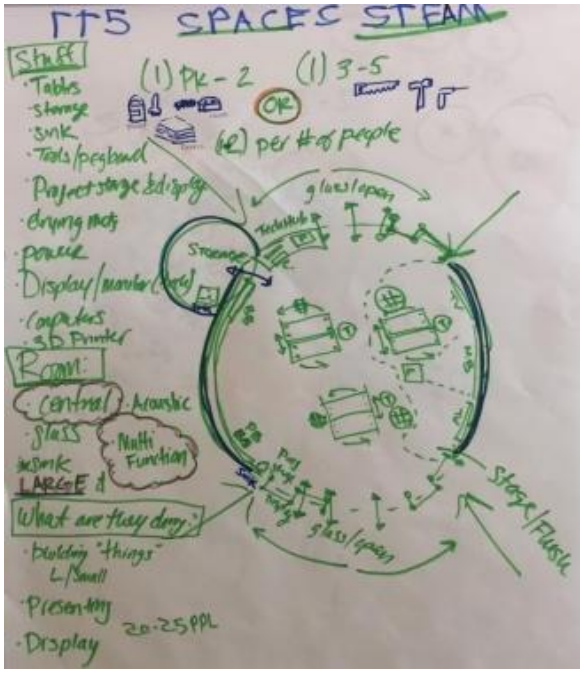




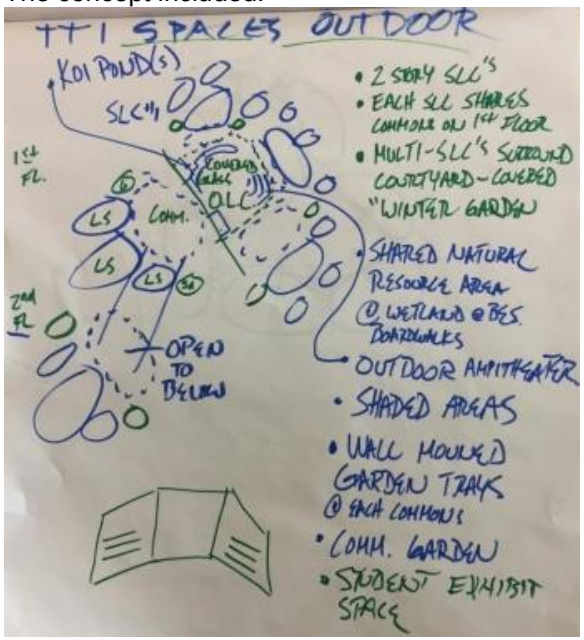


SUPPORTING APPLIED/ACTIVE LEARNING
such as Project-Based Learning, STEM, STEAM, Making Things to Learn, etc
Table Team 5
The concept included:

- One for PK-2
- One for 3-5



OTHER: OUTDOOR SPACES
Table Team 1
The concept included:



FUTURE FURNITURE

A breakout group of the Visioning Team participants reviewed and ranked Classroom and Breakout/Commons furniture options for the future.

Their most favored selections are shown on the next page.

#21, Instruction Modules

#25, Flexible Movable Desks

#23, Varied Types of Student Controlled Furniture

COMMUNITY + FAMILY

Workshop participants feel these facility strategies will greatly enhance parent and community connection to and use of the school::

INTENT

- Senior/adult learning
- Multi-generational mentoring
- Parent education and support
- Parent resources
- Pre-K parent/child play opportunities
- Recreational use
- Third party organizations

SPACE NEEDS

- Multi-use space
  - Technology
  - Seating: formal/informal
  - Varying group size
- Classroom with short term child care
- Behavioral health sciences
- Inviting, close to entry
- Support group meeting space
- Art exhibits
- Accessible
- Adult bathrooms

OVERALL SCHOOL ORGANIZATION DIAGRAM

Workshop participants guided Frank Locker in drawing an overall relationship planning diagram for the proposed 1030 student PK-5 elementary school Option, as that was the most favored planning option. Major functions were drawn as bubbles, in relative size, and in relative positioning. The concept featured the following essential characteristics:

OVERALL

- Possibly create separate entries for PK-2 and 3-5 portions of the school
- Possibly ease access and express the importance of community use of the building through a separate entry to a public zone
- Create distinct zones for Grades PK-2 and 3-5
- Pre-K to be related to K-2 but distinct
-
- Create reasonable passage from one to the other to support:
  - Teacher collaboration in shared Teacher Planning Centers
  - Movement of specialist educators who might be serving all grades

SECURE ZONE

Easily accessible from Both PK-2 and 3-5

- Music
- Art
- English as a Second Language spaces
- Media Center/ Learning Commons
- Special Education substantially separate spaces

Separate in each

- Small Learning Communities
  - Core learning spaces
  - Breakout/Collaboration/Extended Learning Areas
  - Maker spaces
  - Teacher Collaboration Centers
  - Presentation Space
- Administration Office
- Guidance Office
- Special Education inclusion spaces
- Toilets
  - In Classrooms in lower grades
  - In Small Learning Communities in upper grades
- Outdoor learning spaces

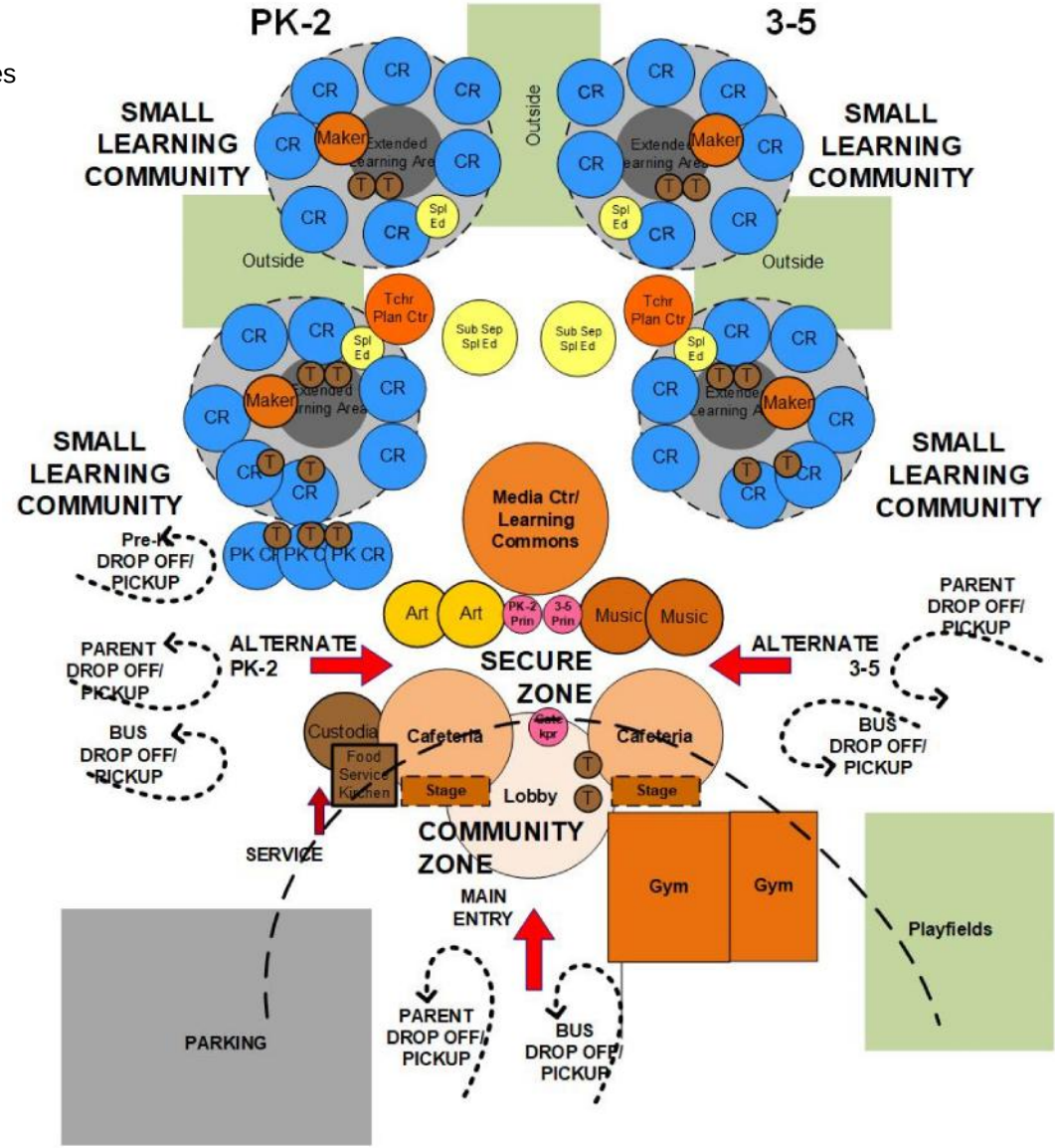
COMMUNITY USE ZONE

- Gatekeeper/security office as entry to Secure Zones
- Cafeteria/Commons/Food Courts:
  - Multiple food source stations
  - Flow through
  - Stage
- Gymnasiums
- Stage in Cafeteria(s)

EXTERIOR FUNCTIONS

- Parking
  - Visitors/Community
  - Faculty and staff
- Drop off/pick up
  - Bus drop off/pick up separate from parent drop off/pick up
  - Separate for Pre-Kindergarten
  - Alternate: separate for Grades K-2 and Grades 3-5
- Playfields accessible from Gym

The overall diagram is shown here:



NORTHBRIDGE PK-5 SCHOOL
Relationship concept.
Not all spaces shown.
Number of Classrooms not determined.

21st Century Schools

Frank Locker PhD
fl@franklocker.com

The History of School

100 YEARS AGO

75 YEARS AGO

50 YEARS AGO

TODAY

The History of School

100 YEARS AGO

The History of School

TODAY

The History of School

TODAY

The Future of Work

1

THOMAS FREY, GOOGLE FUTURIST

2030

1. Augmented Reality Architects
2. Alternative Currency Bankers
3. Seed Capitalists
7. Urban Agriculturalists
12. 3D Printing Engineers
13. 3D Food-Printer Engineers
17. Wind Turbine Repair Techs
19. Smart Dust Programmers
26. Elevated Tube Transport Engineers
32. College and University Dismantlers

As a rule of thumb, 60% of the jobs 10 years from now haven't been invented yet

The Future of Work

1

THOMAS FREY, GOOGLE FUTURIST

2030 and beyond.

35. Tree-Jackers
37. Extinction Revivalists
44. Time Brokers – Time Bank Traders
54. Amnesia Specialists

(By the time our students are 40 years old, they will have had nine jobs)

The Future of School

21st Century Learning: Future of Schools

TODAY TODAY





TODAY TODAY

21st Century Learning

20th CENTURY TEACHER CENTERED

- Focus on teaching efficiency
- Producing workers for an industrial age
- Content knowledge
- "Broadcast" teaching
- Students work alone

- Content is abstracted
- Teacher is holder of knowledge
- Teacher works alone
- Subjects taught separately

- Mostly direct instruction + papers

21st CENTURY STUDENT CENTERED

- Focus on learning effectiveness
- Producing citizens for a post-industrial age
- Relationships + skills
- Personalized learning
- Collaborative learning

- Content is relevant
- Teacher is a guide
- Teacher collaboration + teams
- Integrated/interdisciplinary learning
- Problem-based/project-based learning

Measures of Success?

HOW DO WE KNOW WE ARE DOING THE RIGHT THING?

- Standardized testing

- Course failure rates
- Attendance rates
- Graduation rates
- Student behavior
- Parent involvement
- College/post-secondary admission
- College/post-secondary graduation
- Others?

Measures of Success?

HOW DO WE KNOW WE ARE DOING THE RIGHT THING?

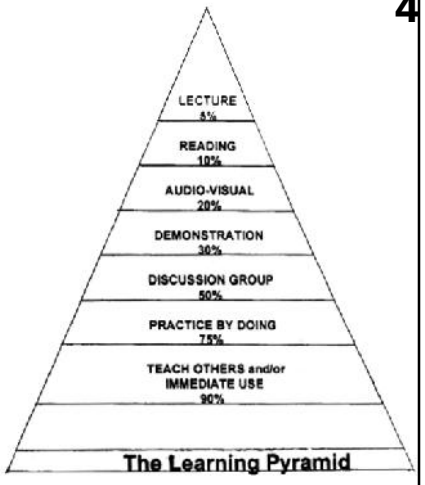
What do students want to talk about at the dinner table every night?

Learning Research 4

LEARNING PYRAMID

Rate of retention of different modes of learning

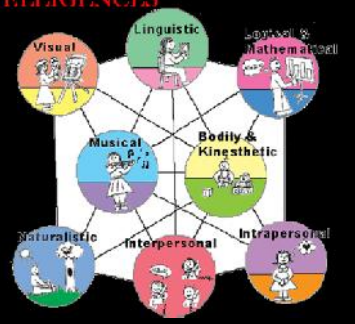
ACTIVE LEARNING + RESPONSIBILITY CREATES MORE RETENTION THAN PASSIVE LEARNING

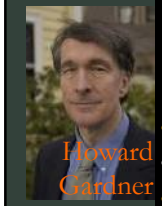


NTL Institute for Applied Behavioral Science

Learning Research 5

MULTIPLE INTELLIGENCES





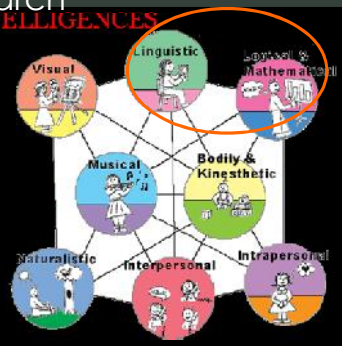
Howard Gardner

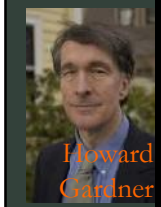
- There are eight or more intelligences
- People are strong in some, not in others
- Every student's education should engage natural strengths, so they can develop others

Darleen Fabio Graduate Student, Educational Technology,SDSU

Learning Research 5

MULTIPLE INTELLIGENCES





Howard Gardner

- There are eight or more intelligences
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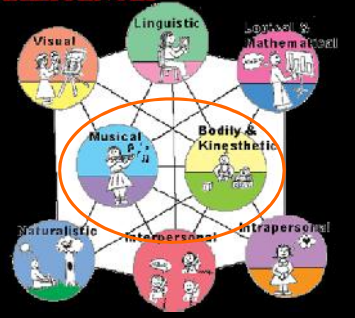
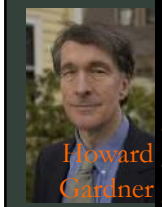
Darleen Fabio Graduate Student, Educational Technology,SDSU

Learning Research 5

MULTIPLE INTELLIGENCES





Howard Gardner

- There are eight or more intelligences
- People are strong in some, not in others
- Every student's education should engage natural strengths, so they can develop others

Darleen Fabio Graduate Student, Educational Technology,SDSU

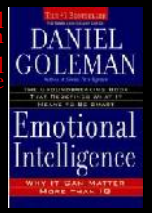
Emotional Intelligences

6

SUCCESS IN LIFE

Daniel Goleman

Emotional Intelligence



"85% of success is based on your EQ, not your IQ"

Relationships

7

MAGIC OF 150

Dunbar's Number

The theoretical cognitive limit to the number of people with whom one can maintain stable social relationships. These are relationships in which an individual knows who each person is, and how each person relates to every other person.

150 is really 100 to 225

GOOGLE THE "MAGIC OF 150"

Defining 21st Century Learning

8

BLENDED LEARNING; FLIP THE CLASSROOM

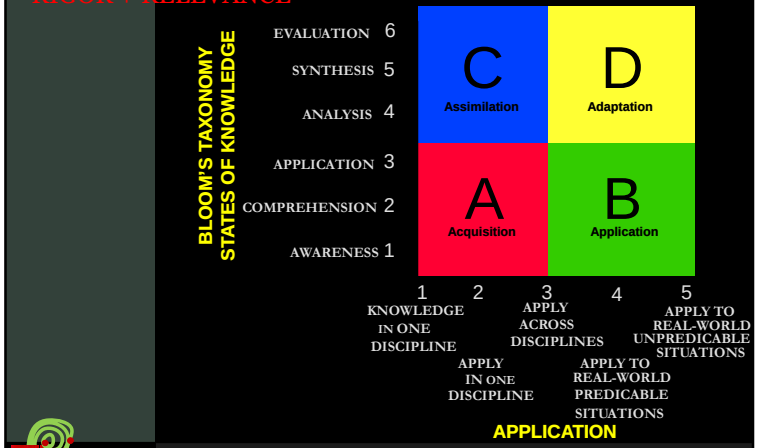
Defining 21st Century Learning

8

BLENDED LEARNING; FLIP THE CLASSROOM

Learning Research 9

RIGOR + RELEVANCE



Source: International Center for Leadership in Education WWW.LeaderEd.com

Learning Research 9

RIGOR + RELEVANCE

Elementary School

A Acquisition

- Put words together in sentence format
- Memorize multiplication tables
- Demonstrate phases of the moon
- Memorize names, locations, and capital cities of U.S. states

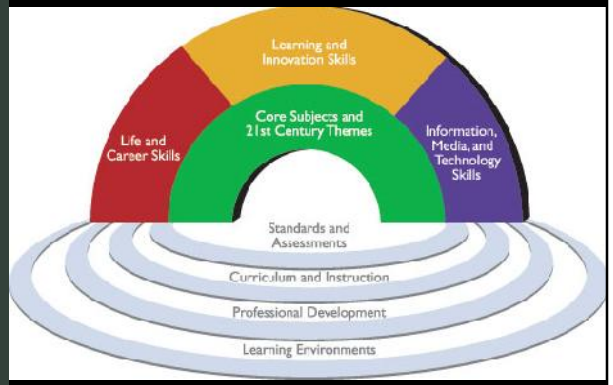
D Adaptation

- Publish a brochure
- Collect data on an event and compare it to expected results, such as the number of faulty parts manufactured
- Design a candy dispenser that works without gravity
- Research a location in the U.S. and explain why it is a good place to live

International Center for Leadership in Education WWW.LeaderEd.com

Learning Research 10

21st CENTURY SKILLS



Partnership for 21st Century Learning

Partnership for 21st Century Learning 10

THE FOUR 'Cs"

- Creativity + innovation
- Critical thinking + problem solving
- Communication
- Collaboration

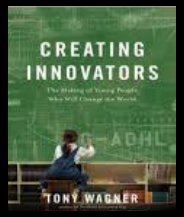
Partnership for 21st Century Learning

11

21st Century Learning

INNOVATION

Tony Wagner
Creating Innovators



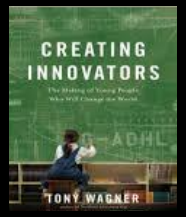
"When a student can learn everything they need to know from the internet, the curriculum is no longer important.
The school experience is."

11

21st Century Learning

INNOVATION

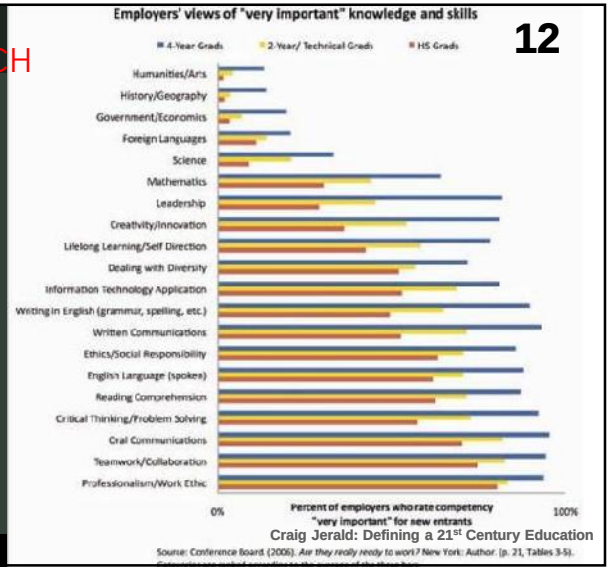
Tony Wagner
Creating Innovators



"What you know is not important.
What you do is."

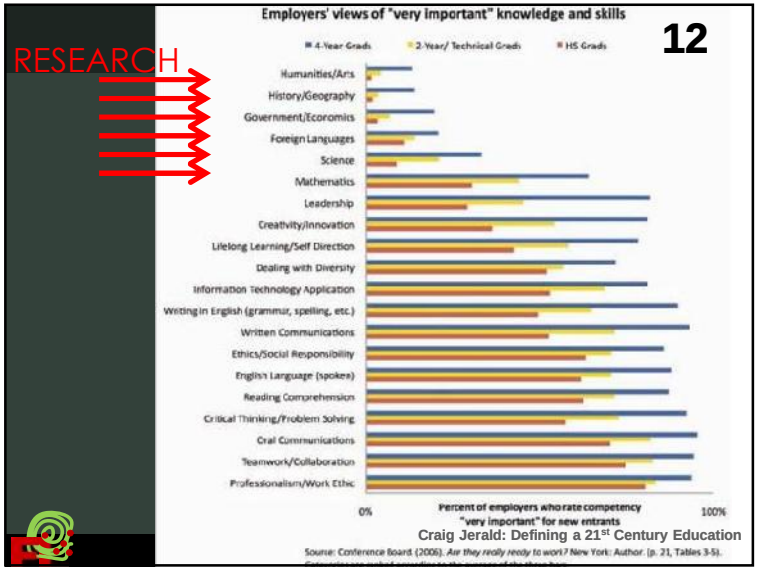
RESEARCH

12



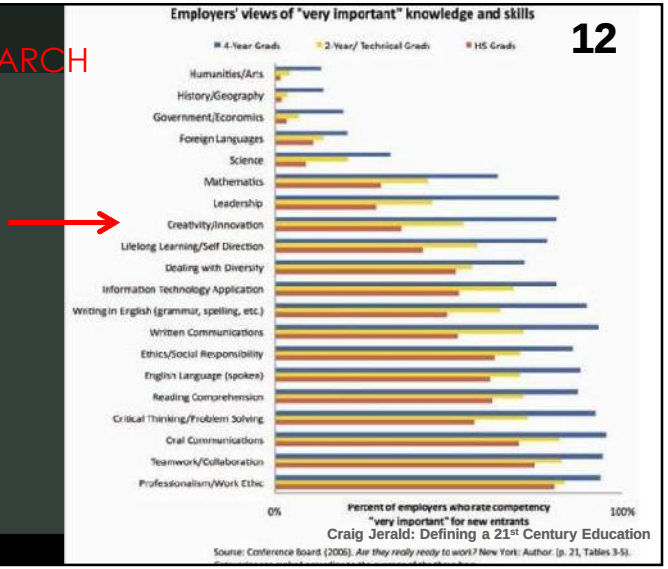
RESEARCH

12



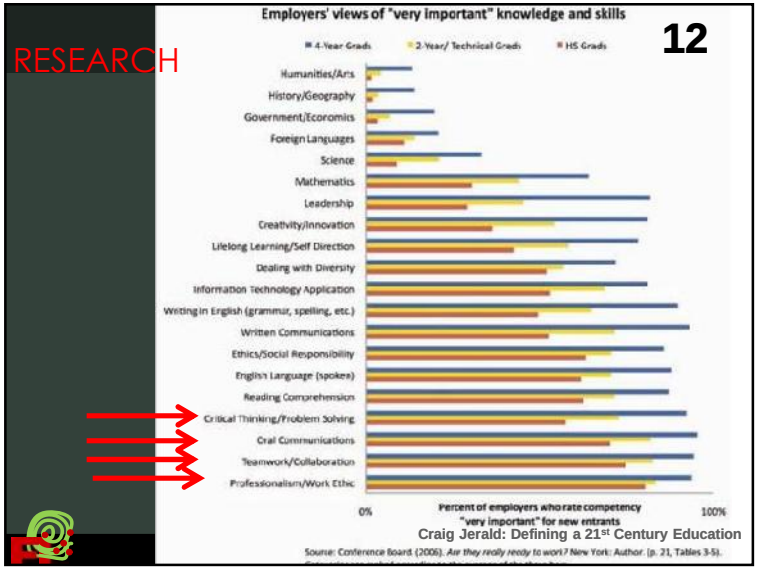
RESEARCH

12



RESEARCH

12

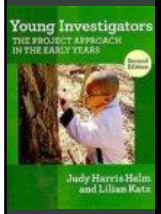


Learning Research

15

PROJECT BASED LEARNING

There is ample evidence that PBL is an effective method for teaching students complex processes and procedures such as planning, communicating, problem solving, and decision making.



There is some evidence that PBL, in comparison to other instructional methods, has value for enhancing the quality of students' learning in subject matter areas, leading to the tentative claim that learning higher-level cognitive skills via PBL is associated with increased capability on the part of students for applying that learning in novel, problem solving contexts.

A REVIEW OF RESEARCH ON PROJECT-BASED LEARNING John W. Thomas, Ph. D, 2000

Africa Discovery

15

MANCHESTER, MA, MEMORIAL SCHOOL

21st Century Skills in Action: Manchester Memorial School, Gr. 6

A social studies unit on Africa was used to teach global awareness, technology skills, music and art at this Manchester-Essex school. Each student chose an African country to study in depth, did their research online, created their final projects using Powerpoint and presented them using SMART Boards. While this project was ongoing, students discussed and constructed African masks in art class, and learned about and practiced African drumming in Music class. More on this program: http://www.doe.mass.edu/edtech/practices/manchester/intro.htm.

21st century skills used in this project: global awareness, creativity, technology, collaboration, communication, problem solving

Massachusetts Dept Education 21st Century Skills Task Force

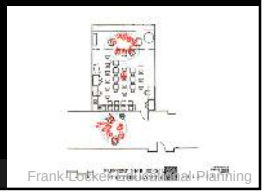
Integrated Arts

16

INTEGRATED ARTS ELEMENTARY SCHOOL, BURLINGTON, VT

Core learning goes up when arts are integrated in core classrooms, especially for English language learners

"Give me a classroom big enough to dance in."



Frank Locker Educational Planning

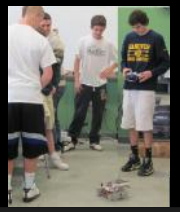
STEM + STEAM

17a

STEM/SCIENCE-TECHNOLOGY-ENGINEERING-MATH

ADD THE ARTS AND GET STEAM

STEM Program, Newton North High School



Hanover High School, Hanover, MA

Elementary STEM

17a

ENVIRONMENTAL SCIENCES/SUSTAINABLE LIVING

Environmental sciences schools have higher levels of parental contact than typical schools…

…And great math scores

Theodore Judah ES, Sacramento, CA

Barnes Sustainable Living ES, Burlington, VT
Frank Locker Educational Planning

Elementary STEM
Add the Arts and get STEAM

17a

STEM + STEAM: ENGINEERING CLASSROOM

High Tech Elementary, San Remos, CA

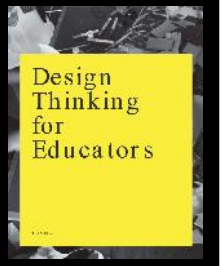
Design Thinking
Making Things to Learn
17b

Agency by Design

Project Zero
Harvard Graduate School of Education

DESIGN & THINKING
THE MOVIE

Harvard Graduate School of Design



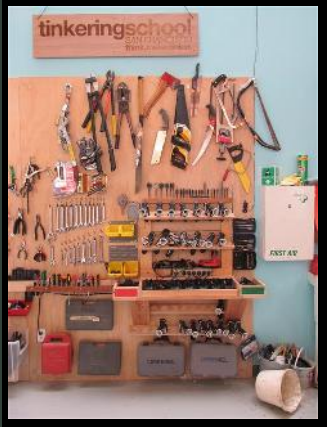
Ideo

Design Thinking
Making Things to Learn
17b

BRIGHTWORKS SCHOOL, SAN FRANCISCO, CA

Design Thinking
Making Things to Learn
17b

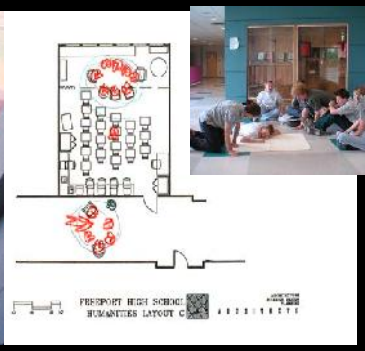
BRIGHTWORKS SCHOOL, SAN FRANCISCO, CA



End of Part 1

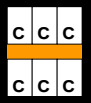
21st Century Schools
NEW CLASSROOM CONCEPTS

- What is and where is a classroom?



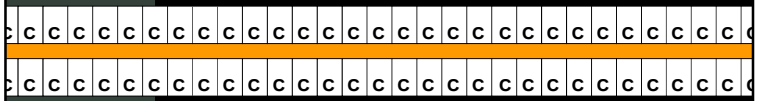
20th Century Schools
18

CORRIDORS + CLASSROOMS



20th Century Schools
18

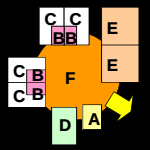
CORRIDORS + CLASSROOMS



DISJOINTED CURRICULUM DELIVERED BY INDIVIDUAL TEACHERS IN ISOLATED SETTINGS

21st Century Schools
19

SUITES OF SPACES FOR LEARNING

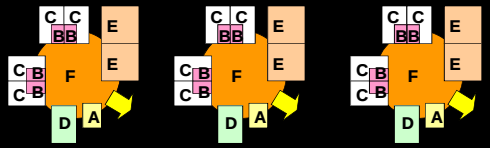


INTEGRATED CURRICULUM DELIVERED BY COLLABORATIVE TEACHERS IN A RELATIONSHIP-BASED SETTING

21st Century Schools

19

SUITES OF SPACES FOR LEARNING



INTEGRATED CURRICULUM DELIVERED BY COLLABORATIVE TEACHERS IN RELATIONSHIP-BASED SETTINGS

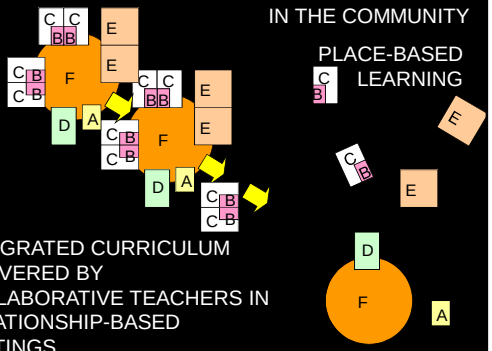
21st Century Schools

19

SUITES OF SPACES FOR LEARNING

INTERNSHIPS + SERVICE LEARNING IN THE COMMUNITY

PLACE-BASED LEARNING



INTEGRATED CURRICULUM DELIVERED BY COLLABORATIVE TEACHERS IN RELATIONSHIP-BASED SETTINGS

Small Learning Communities

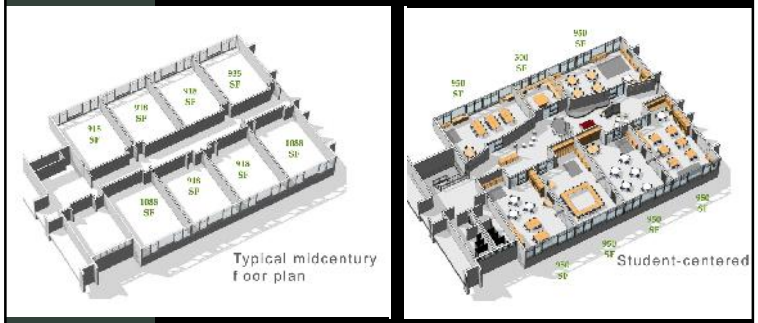
20

HELSINKI PRIMARY SCHOOLS, HELSINKI, FINLAND

Small Learning Communities

20

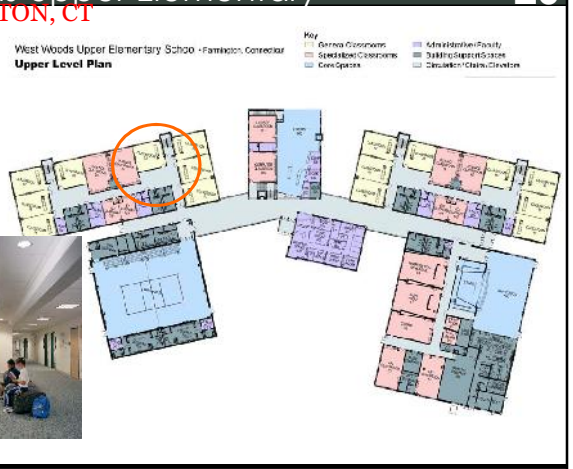
COLLABORATION, BREAKOUT, EXTENDED LEARNING AREAS



Dore & Whittier Concept

Collaboration, Breakout, Extended Learning Areas
West Woods Upper Elementary
20

FARMINGTON, CT



JCJ Architects

21st Century Learning Spaces
20

LEARNING IS A SOCIAL ACTIVITY

Moody Nolan Architects

21st Century Learning Spaces
20

MAKE LEARNING VISIBLE

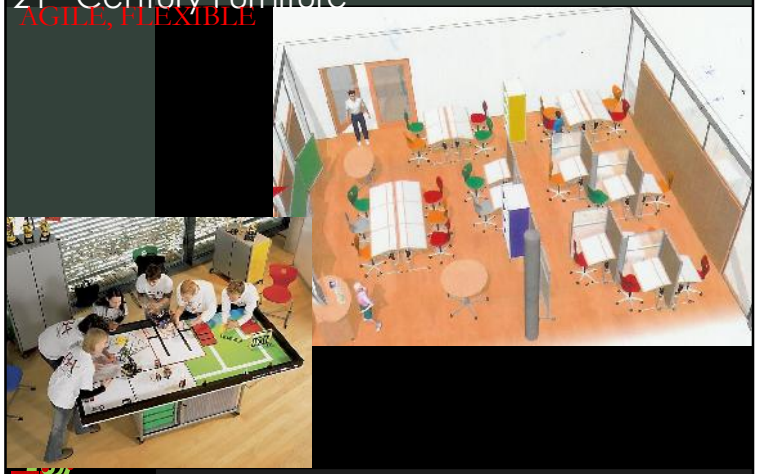
Moody Nolan Architects

20th + 21st Century Furniture
21

21st Century Furniture

21

AGILE, FLEXIBLE



VS Furniture

21st Century Furniture

21

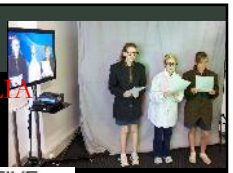
STAND UP DESKS

Safco AlphaBetter

Project Spaces

22

RM REAL CENTRE UK, USA, AUSTRALIA



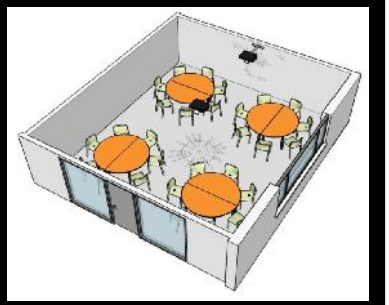
RMeducation

Empowering Student Collaboration

23a

DARTMOUTH, UK

"IDEAL" MATH CLASSROOM



Kilworth Edunova

Studios Not Classrooms

23b

VS Furniture

High Tech High, David Stephen, Designer

Making Learning Visible

24

High Tech High, David Stephen, Designer

Making Learning Visible

24

High Tech Elementary, San Marcos, CA

High Tech Elementary, Chula Vista, CA

Teacher Planning Centers Grade 1-8 School

25

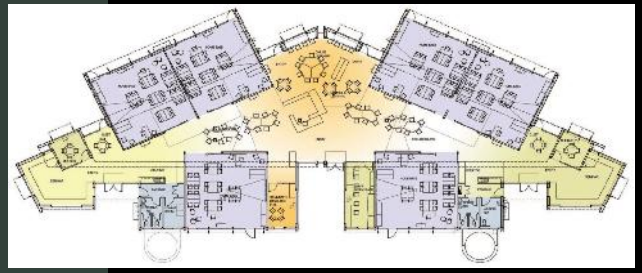
NEW ALBANY, OH

Moody Nolan Architects

End of the Library as We Know it Today

26

VICTORIA, AUSTRALIA DEPT EDUCATION



End of the Library as We Know it Today

26

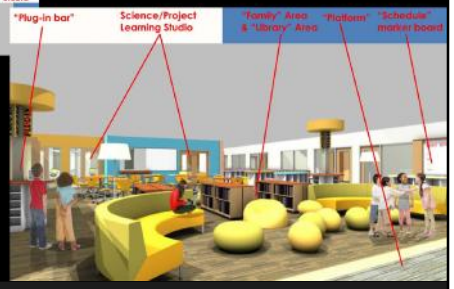
CONCORD, NH ELEMENTARY SCHOOLS

HMFH Architects

End of the Library as We Know it Today
West Muskingum Elementary School

26

ZANESVILLE, OH



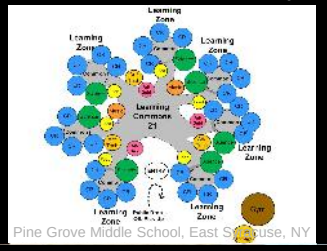
Teacher Planning Centers

Frank [illegible] Nair International Frank Locker Educational Planner/Fanning/Howey Associates Architects

End of the Cafeteria as We Know it Today

27

Summit Elementary School, Casper, WY



Pine Grove Middle School, East Syracuse, NY

Scituate Middle School, Scituate, MA

Frank Locker Educational Planning

End of the Library as We Know it Today
Blue Point School
28

SCARBOROUGH, ME

K-2 MULTI-AGE CLASSROOMS

"How can we teach children collaboration if every adult they see in the building is working alone?"

PDT Architects

Forest Avenue School K-2 Center
29

MIDDLETOWN, RI

Frank Locker/Fielding Nair International Educational Planners Litman Architects

Forest Avenue School K-2 Center
29

MIDDLETOWN, RI, USA

Teacher Teams, Multi-Age, Flexible Student Groups

Frank Locker/Fielding Nair International Educational Planners Litman Architects

Forest Avenue School K-2 Center
29

MIDDLETOWN, RI, USA

Teacher Teams, Multi-Age, Flexible Student Groups

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Forest Avenue School K-2 Center 29

MIDDLETOWN, RI, USA

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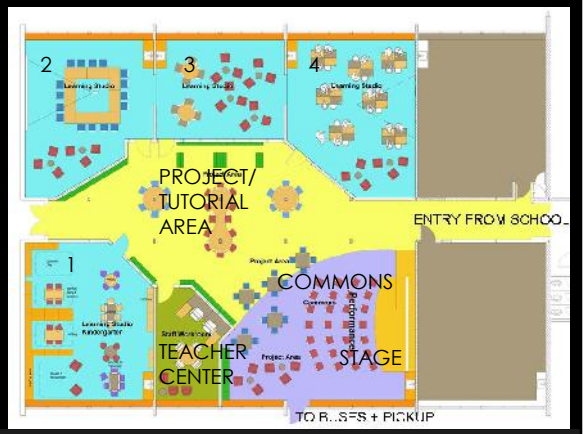
4 Core Teachers + 2 Spl Ed Teachers + Specialists with 85 Students



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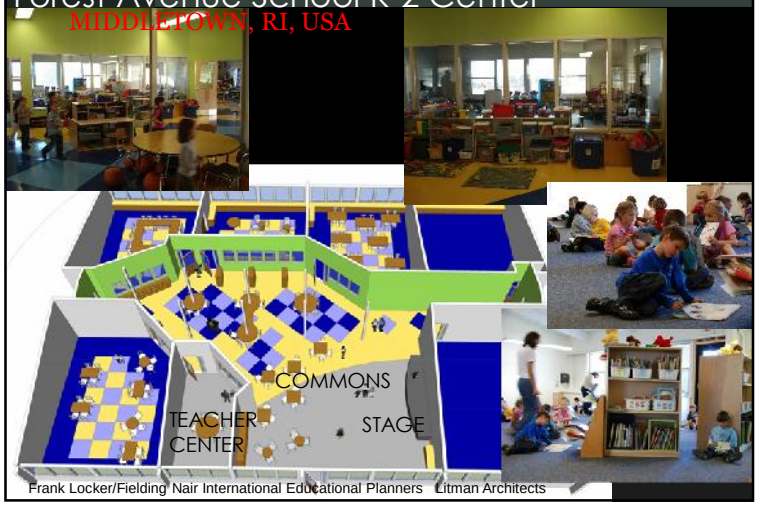
Forest Avenue School K-2 Center 29

MIDDLETOWN, RI, USA

Nair International Educational Planners Litman Architects

Forest Avenue School K-2 Center 29

MIDDLETOWN, RI, USA

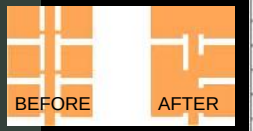


Frank Locker/Fielding Nair International Educational Planners Litman Architects

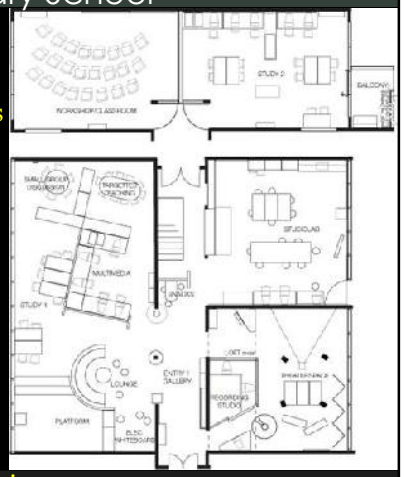
The End of the Classroom as We Know it Today
Wooranna Park Primary School 30

MELBOURNE, AUSTRALIA

- Year 5 + 6
- 110 Students
- Teacher Teams
- Activity Zones
- Project-Based Learning

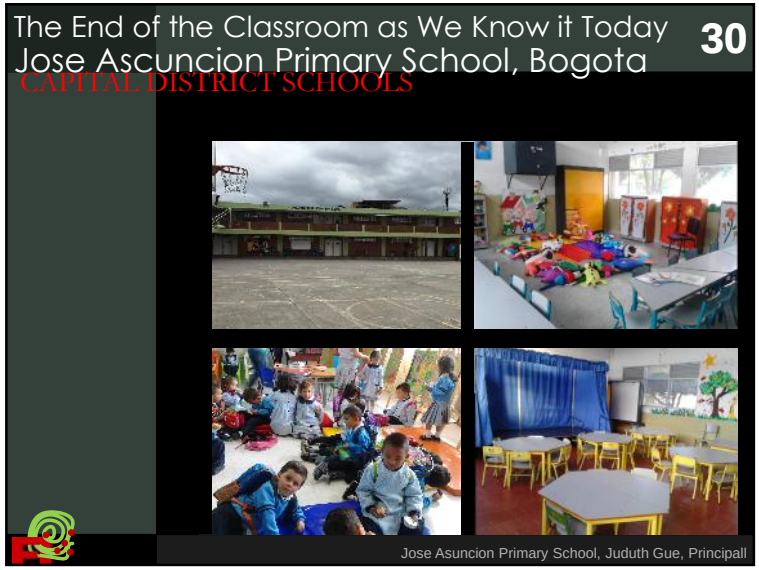


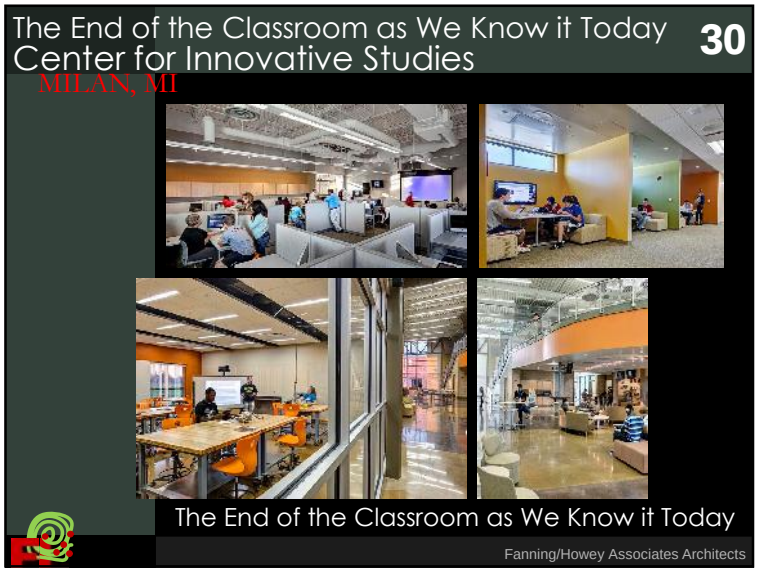
- High Poverty
- Test Scores at 36% - 73% vs 12% Expected per Student Family Occupation



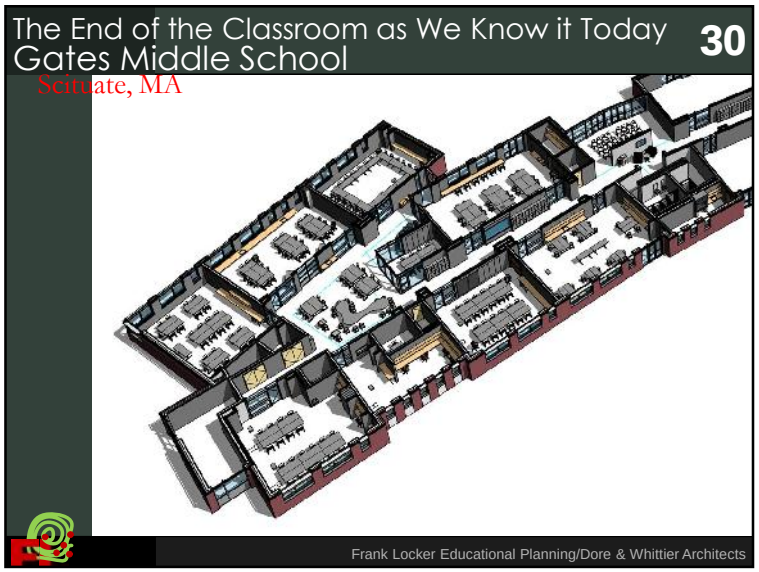
Mary Featherston Designer


The End of the Classroom as We Know it Today
30
Wooranna Park Primary School
MELBOURNE, AUSTRALIA
Mary Featherston Designer


The End of the Classroom as We Know it Today
30
Jose Ascuncion Primary School, Bogota
CAPITAL DISTRICT SCHOOLS
Jose Asuncion Primary School, Juduth Gue, Principall


The End of the Classroom as We Know it Today
30
Center for Innovative Studies
MILAN, MI
The End of the Classroom as We Know it Today
Fanning/Howey Associates Architects


The End of the Classroom as We Know it Today
30
Center for Innovative Studies
MILAN, MI
The End of the Classroom as We Know it Today
Fanning/Howey Associates Architects


The End of the Classroom as We Know it Today
Gates Middle School
30
Scituate, MA
Frank Locker Educational Planning/Dore & Whittier Architects

Places for Learning
A TYPOLOGY

Frank Locker PhD
fl@franklocker.com

Places for Learning- A Typology
ORGANIZATION

From:	To:
Most traditional	Most innovative
Teachers work alone	Teachers work together
Students learn in class	Personalized learning
Isolated subjects	Integrated curriculum
Teach + test learning	Project-based learning
Schedule controls time	Students + teachers control time

Places for Learning- A Typology
YOUR ASSIGNMENT

IDENTIFY YOUR GRADE LEVEL FOCUS, IF ANY:

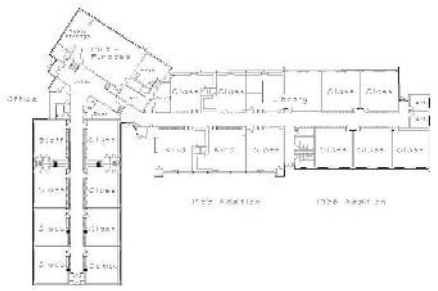
RANK

- Work with your table team mates. Identify:
  - The 3 most appropriate exemplars.
    - Why? What qualities did you admire?
  - The 1 least appropriate.
    - Why? What qualities did you dislike?

Minges Brook Elementary School
BATTLE CREEK, MI

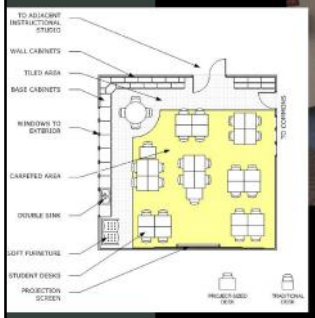
A

- **Separate Classrooms**
- **Teachers work alone**
- **Few adjacent support spaces**
- **No visibility between spaces**



STUDIO SPACE
Grand Rapids Public Schools
MIDDLE SCHOOLS

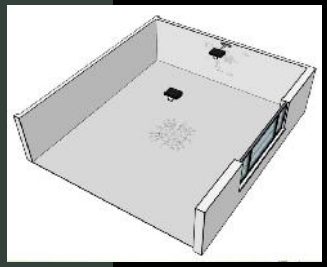
B

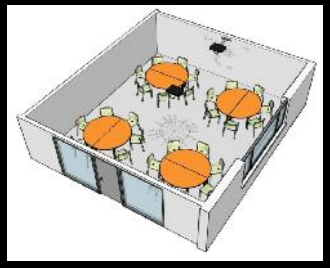


Frank Locker/DeJONG Inc

"IDEAL" MATH CLASSROOM
DARTMOUTH, UK

C

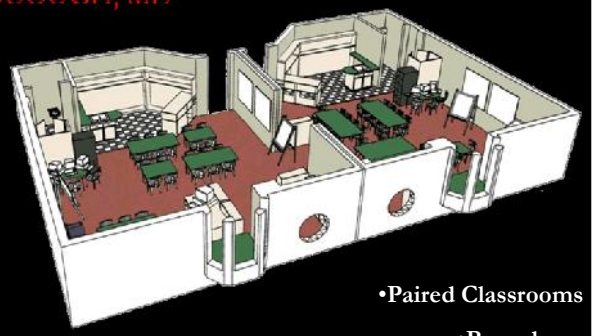




Kilworth Edunova

Blue Point Primary School
SCARBOUOUGH, ME

D



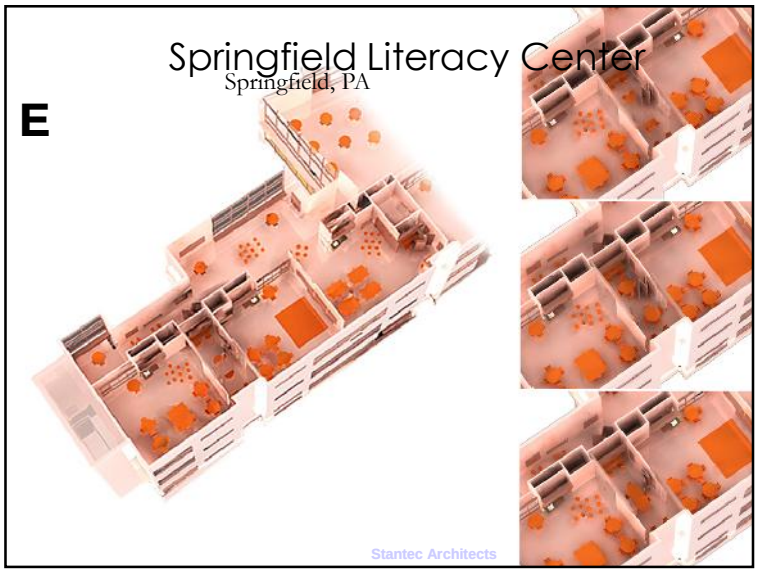
- Paired Classrooms
- Barn doors
- Arranged along Corridor
- Toilets in rooms

Blue Point Primary School PDT Architects

INTERSTITUAL + BREAKOUT SPACES
Springfield Literacy Center
SPRINGFIELD, PA

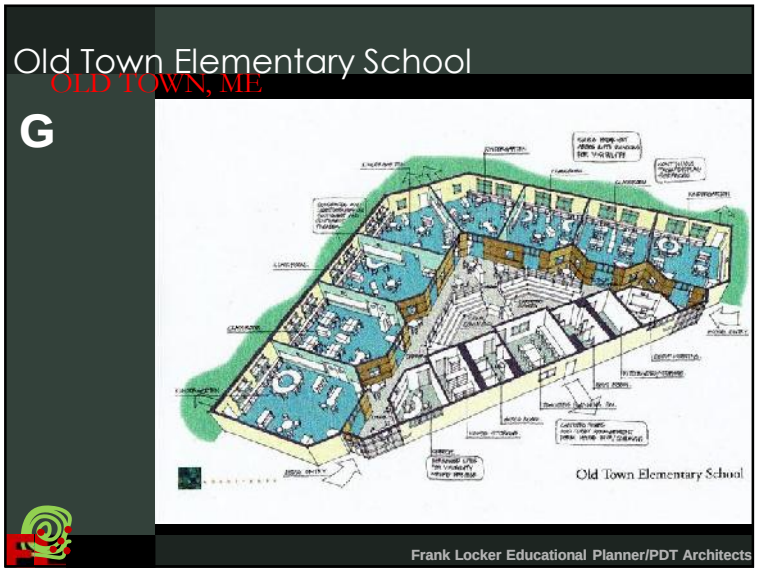
E

Stantec Architects


Springfield Literacy Center
Springfield, PA
E
Stantec Architects


Springfield Literacy Center
SPRINGFIELD, PA
E
Stantec Architects


FLOWING STUDIOS WITH COMMON SPACE
Slate Magazine 5th Grade Exploratory Classrm
F
Greg Stack NER Architects


Old Town Elementary School
OLD TOWN, ME
G
Old Town Elementary School
Frank Locker Educational Planner/PDT Architects

COMMON SPACE OTHER USES/FLEX WALLS
Cristo Rey High School
MINNEAPOLIS, MN

H

Fielding Nair International

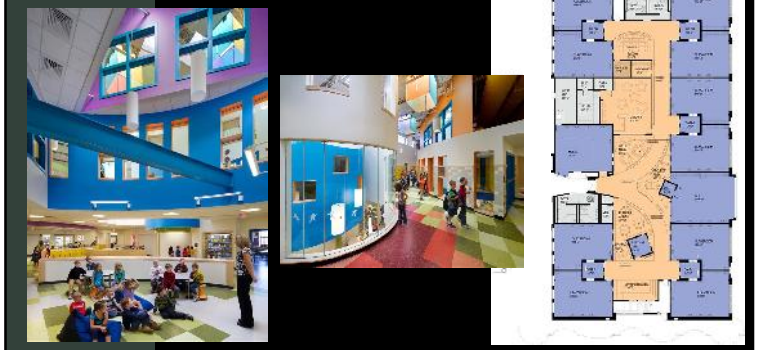
COMMON SPACE HOLDS OTHER USES
End of the Library as We Know it Today
CONCORD, NH ELEMENTARY SCHOOLS

I

HMFH Architects

COMMON SPACE HOLDS OTHER USES
End of the Library as We Know it Today
CONCORD, NH ELEMENTARY SCHOOLS

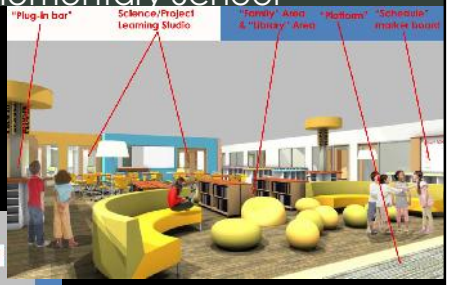
I



HMFH Architects

End of the Library as We Know it Today
West Muskingum Elementary School
ZANESVILLE, OH

J



Fielding Nair International Frank Locker Educational Planner/Fanning/Howey Associates Architects

Grade 1-8 School
NEW ALBANY, OH

K




Moody Nolan Architects

Grade 1-8 School
NEW ALBANY, OH

K



Moody Nolan Architects

Grade 1-8 School
NEW ALBANY, OH

K

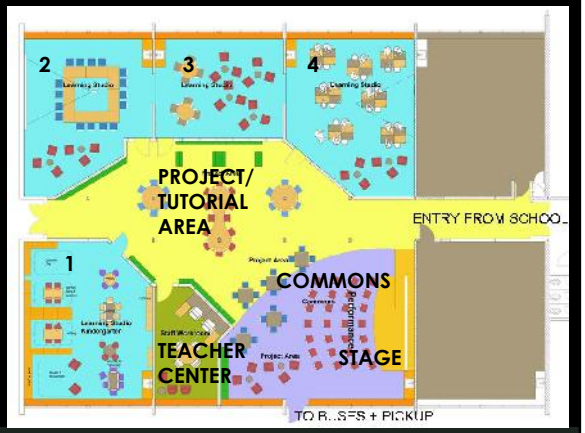
Moody Nolan Architects

SHARED STUDIOS + RESPONSIBILITY
Forest Avenue School K-2 Center
MIDDLETOWN, RI

L

Teacher Teams, Multi-Age, Flexible Student Groups

4 Core Teachers + 2 Spl Ed Teachers + Specialists with 85 Students



Frank Locker/Fielding Nair International Educational Planners Litman Architects

SHARED STUDIOS + RESPONSIBILITY
Forest Avenue School K-2 Center
MIDDLETOWN, RI

L

Frank Locker/Fielding Nair International Educational Planners Litman Architects

SHARED STUDIOS + RESPONSIBILITY
Forest Avenue School K-2 Center
MIDDLETOWN, RI

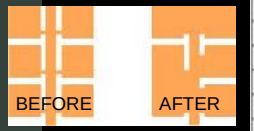
L

Frank Locker/Fielding Nair International Educational Planners Litman Architects

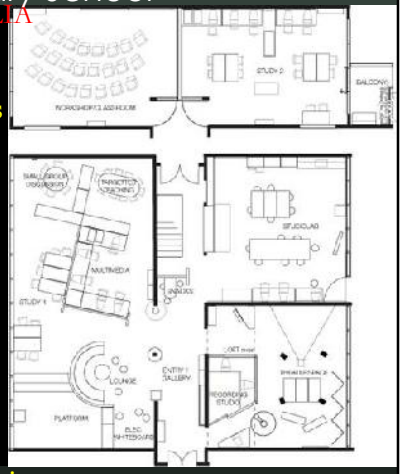
DIFFERENTIATED STUDIOS
Wooranna Park Primary School
MELBOURNE, AUSTRALIA

M

- Year 5 + 6
- 110 Students
- Teacher Teams
- Activity Zones
- Project-Based Learning



- High Poverty
- Test Scores at 36% - 73% vs 12% Expected per Student
- Family Occupation



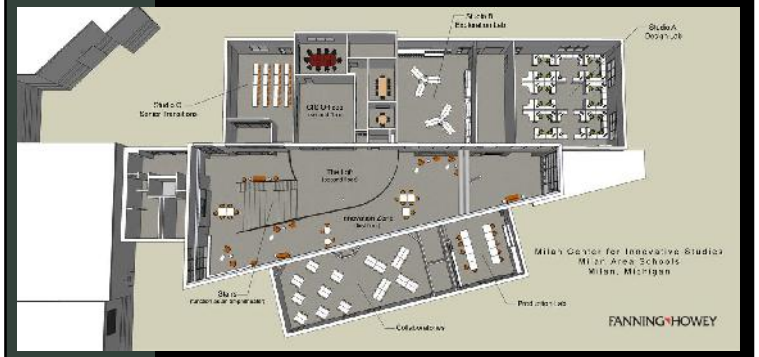
Mary Featherston Designer

DIFFERENTIATED STUDIOS
Wooranna Park Primary School
MELBOURNE, AUSTRALIA

M

Mary Featherston Designer

THE END OF THE CLASSSROOM AS WE KNOW IT TODAY
Milan HS Center for Innovative Studies
MILAN MI
M
Project-Based Learning



Fanning Howey Associates Architects

THE END OF THE CLASSSROOM AS WE KNOW IT TODAY
Milan HS Center for Innovative Studies
MILAN MI
M
Project-Based Learning

Fanning Howey Associates Architects

THE END OF THE CLASSSROOM AS WE KNOW IT TODAY
Milan HS Center for Innovative Studies
MILAN MI
M
Project-Based Learning

Fanning Howey Associates Architects

Future Furniture

Classrooms

GIMNASIO LOS CAOBOS, BOGOTA, COLOMBIA: BEFORE
High School
Before we renovated:



(formerly known as) Classrooms

GIMNASIO LOS CAOBOS, BOGOTA, COLOMBIA: AFTER
High School
VS chairs and student desks made locally using aluminum extrusions




Classrooms

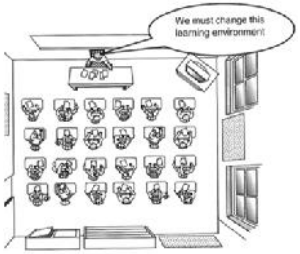
TRADITIONAL MODEL, PERFECT FOR LECTURE + DIRECT INSTRUCTION

Classrooms

SCHOOL FURNITURE: STUDENT CENTERED LEARNING – STEP 1

A Series of Steps for Reconfiguring the Classroom to Reflect Student Empowerment:

From Teacher to Student Centered



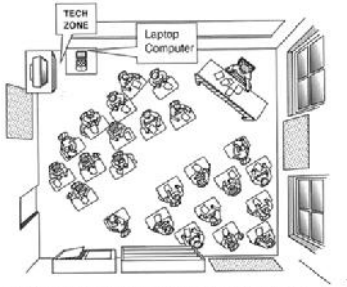
Step 1: Recognize that the typical classroom configuration and the mode of teacher-centered learning are unsatisfactory for twenty-first-century student-centered learning.

Classrooms

SCHOOL FURNITURE: STUDENT CENTERED LEARNING – STEP 2

A Series of Steps for Reconfiguring the Classroom to Reflect Student Empowerment:

From Teacher to Student Centered

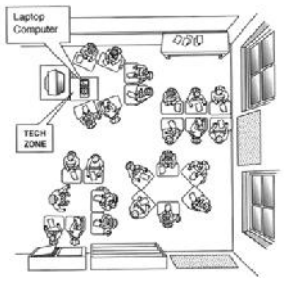


Step 2: Try something as simple as putting desks on a diagonal at a forty-five-degree angle to the walls. Align desks so they are not all facing the teacher as sole provider of information. Define a tech zone.

Classrooms

SCHOOL FURNITURE: STUDENT CENTERED LEARNING – STEP 3

Small Group Facilitation

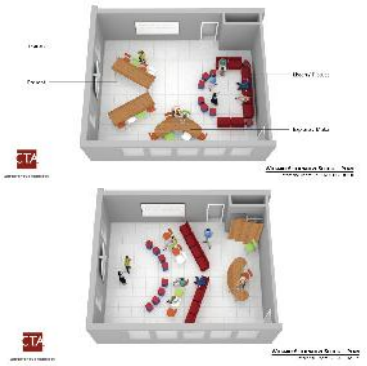


Step 3: Replace the teacher's desk with a side table, which enables the teacher to evolve into a facilitator, moving from small group to small group, with each group focused on its own problem to solve. The "power" has shifted to the student teams.

(formerly known as) Classrooms

SCHOOL FURNITURE: STUDENT CENTERED LEARNING – STEP 4

Learning Flexibility; Individual, Small/Large Group, Presentation

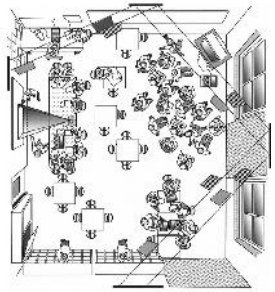


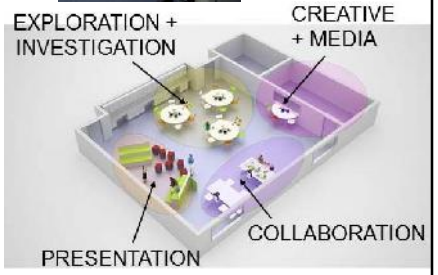
Step 4: Expand the technology zone. Provide configurations that support the entire learning process: research and experimentation, production, and presentation and reflection. Support individual, small group, and large group learning. The balance of power has shifted to the "gainfully employed" student.

(formerly known as) Classrooms

SCHOOL FURNITURE: STUDENT CENTERED LEARNING – STEP 5

Diffused Technology, Presentation, Display, Storage

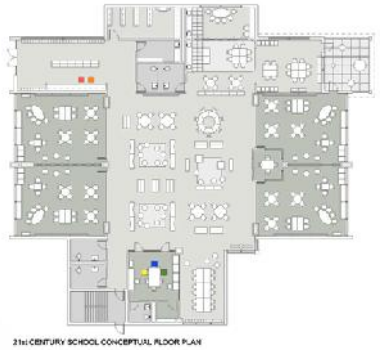




Step 5: Technology use is diffused throughout the learning space while maintaining a tech zone for teamwork and production. Add student work display space such as floor-to-ceiling tackable surfaces, suspended overhead display, storage, and drop-down elements.

(formerly known as) Classrooms

VIDEO: RATE THE EXPERIENCE ON THE LEFT



(formerly known as) Classrooms

FURNITURE ON WHEELS

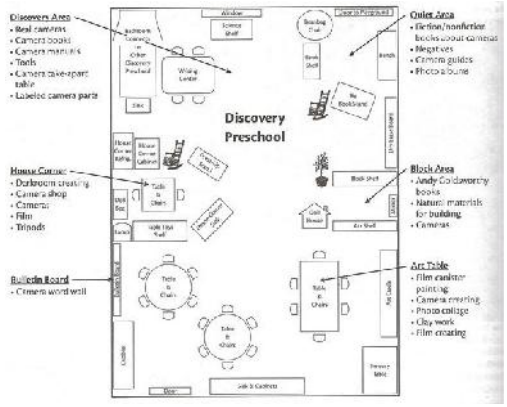
(formerly known as) Classrooms

MODULAR RE-CONFIGURABLE STUDENT DESKS

(formerly known as) Classrooms

VARIETY OF FURNITURE IN EACH ROOM

Creating multiple learning centers.



Judy Helm + Lilian Katz

(formerly known as) Classrooms

VARIETY OF FURNITURE IN EACH ROOM

Creating multiple learning centers.

VS Furniture

(formerly known as) Classrooms

STEELCASE LEARNLAB:

Quick flip from direct teaching to small group discussion

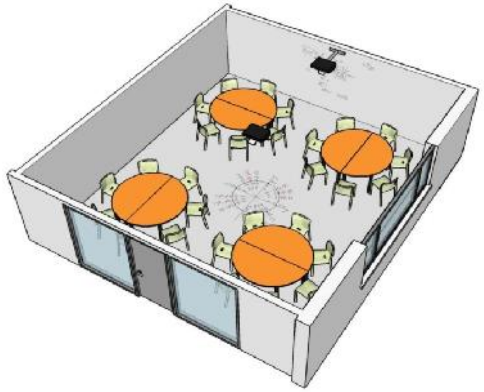
https://www.youtube.com/watch?v=CnU58hbYN1M

https://www.youtube.com/watch?v=tmWfNdzrlqQ

Steelcase

(formerly known as) Classrooms

ROUND TABLES: THE QUINTESSENTIAL COLLABORATION STATEMENT



(formerly known as) Classrooms

STAND UP DESKS

Research shows student behavior improves when students can move while learning.



Safco AlphaBetter

(formerly known as) Classrooms

FLEXIBLE FURNITURE

Steelcase Node Chair



(formerly known as) Classrooms

BEAN BAG CHAIRS

Every student's wish. Every teacher's fear.




VS Furniture

Breakout Spaces

COLLABORATION BOOTHS



Breakout Spaces

INSTRUCTIONAL MODULES

Breakout Spaces

CARPETED PLACES TO SPRAWL OUT ON THE FLOOR

Breakout Spaces

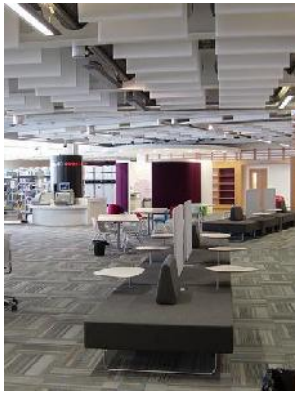
VARIED TYPES OF STUDENT CONTROLLED FURNITURE

GRADE 1 – 8 SCHOOL, New Albany, OH

Chairs with handles

Breakout Spaces

ELECTRONIC FURNITURE



Breakout Spaces

FLEXIBLE MOVABLE DESKS


Frank Locker Educational Planning 25

Breakout Spaces

PRESENTATION AREAS


Frank Locker Educational Planning 26

Breakout Spaces

INFORMAL SITTING/STUDY AREAS



Frank Locker Educational Planning 27

Breakout Spaces

GROUP DISCUSSION AREAS


Frank Locker Educational Planning 28

Maker Space

D SCHOOL, STANFORD UNIVERSITY, PALO ALTO, CA

Probably the most famous university-level school in USA for PBL and Making Things to Learn

Maker Space

D SCHOOL, STANFORD UNIVERSITY, PALO ALTO, CA

Probably the most famous university-level school in USA for PBL and Making Things to Learn

Maker Space

D SCHOOL, STANFORD UNIVERSITY, PALO ALTO, CA

Probably the most famous university-level school in USA for PBL and Making Things to Learn

SCHOOL TRANSFORMATION + DEVELOPMENT MAP 3.1.7

Name(s)_____ School (District)_____

MAINTAINING TRADITION 1	INITIATING CHANGE 2	PROGRESSIVE 3	TRANSFORMING 4	TRANSFORMED 5

Col 1 = 1 point
Col 2 = 2 points
Col 3 = 3 points
Col 4 = 4 points
Col 5 = 5 points
Average point value for multi-column issues

		INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			TOTALS	
		EDUCATIONAL DELIVERY	N	F	EDUCATIONAL DELIVERY	N	F	EDUCATIONAL DELIVERY	N	F	EDUCATIONAL DELIVERY	N	F	EDUCATIONAL DELIVERY	N	F	NOW	FUTURE
		ALL GRADES INSTRUCTION			ALL GRADES INSTRUCTION			ALL GRADES INSTRUCTION			ALL GRADES INSTRUCTION			ALL GRADES INSTRUCTION				
1	LEARNING THEME	No focused learning theme/expression			Themes to designate internal sub-schools w/ little impact on instruction						Thematic curricular component w/i school			Choice thematic, magnet school				
2	EXHIBITIONS	Student work is rarely actively expressed outside Classroom			Student work occasionally expressed in Corridors etc			Students present work in regular exhibitions			Exhibitions feature outside "experts"			Exhibitions recorded for portfolios + resource				
3	DIFFEREN-CES	Little or no recognition of learning differences among students except "tracking"			As Column 1, but multiple intelligences/learning styles recognized			Multiple intelligences + learning styles honored thru differentiated instruction; no tracking						Mult int+ learning styles used as a basis of student social learning				
4	PERSONAL LEARNING	"Broadcast" teaching: same to all students in the classroom			Occasional differentiated instruction in assignments, assessments			Differentiated instruction as basic approach						Personalized learning plans; student initiated projects				
5	COLLAB-ORATION	Students learn alone			Occasional 2 person teams			Occasional larger teams			Students regularly work in larger teams			Students learn 75% in teams				
6	TEACHER TEAMS	Self contained classroom teaching exclusively			Common planning to coordinate curriculum/know students			Teachers swap classes for sharing instruction but do not teach together			Teachers occasionally integrate curriculum by teaching together in same place + same time			Teachers regularly teach synchronously in coordinated teams				
7	OWNERSHIP	Most teachers have "own" classrooms; others on carts			Teachers share "own" Classrooms with specialist teachers			Small groups of teachers share small # of Classrooms based on schedule						Teachers control suite of spaces with corollary teachers				
8	AWARENESS	Students know very little about activities in neighboring classrooms			Students aware of other Classrooms through occasional sharing			Learning spans several classrooms and related spaces						Learning takes place in coordinated manner in variety of shared spaces				
9	TECH- NOLOGY	Virtually no computer use			Computers seen as sophisticated writing/math tools			Computers also used for learning programs +/or web research			Computers are common in learning			Learning programs, web, virtual access are inseparable from learning				
10	DISPLAY	Best student work is displayed on bulletin boards			All student work on bulletin boards, but trumped by sports in Lobbies						Each student's work is presented + critiqued			Building is rich with 2D + 3D display of student projects				
11	DELIVERY	Almost exclusive direct instruction			Predominantly direct instruction w/ some discussion			Direct instruction with regular group discussion			Direct instruction, group discussion, + some problem solving			Project-based learning, discussions, + "just-in-time" direct instruction				
12	INTEGRA- TION	Core instruction subject based; not all "exploratories" taught			Exploratories (Art, Music, PE, Family) taught separate from non-integrated core			Exploratory coordination with core learning mostly in extracurricular			Occasional integration of core learning +/or exploratories			Regular integrated learning includes core + exploratories				
13	LEARNING LOCATION	Learning exclusively in Classrooms, Labs			Learning exclusively in Classrooms with some field trips						Occasional internships/service learning for some students			Regular internships/service learning are integral to learning				
14	WHO TEACHES	Teacher does the teaching			Teacher with aides do teaching			Students also teach in paired groups/study teams			Students teach each other in project based environment			Students regularly teach others; outside "experts" for projects				
15	MAKING LEARNING VISIBLE	No attempt to make learning visible; hidden behind corridor walls			Learning visible through occasional (mostly arts) entertainment/events			Celebratory events focusing on learning			Learning visible through authentic evaluations, educational "trophies"			Learning highly visible through all aspects of school life				
		CURRICULUM/ ASSESSMENT			CURRICULUM/ ASSESSMENT			CURRICULUM/ ASSESSMENT			CURRICULUM/ ASSESSMENT			CURRICULUM/ ASSESSMENT				
16	ASSESS-MENTS	Students poorly informed about standards for tests, papers, worksheets			Students informed about standards for tests, papers, worksheets			Students know rubrics for exhibitions, performances, displays + exams			Authentic teaching and learning: teach the "whole" child; 21st Cent Skills			Outside "experts" + students also assess with rubrics				

SCHOOL TRANSFORMATION + DEVELOPMENT MAP 3.1.7

Name(s)_____ School (District)_____

Col 1 = 1 point
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Col 3 = 3 points
Col 4 = 4 points
Col 5 = 5 points
Average point value for multi-column issues

		MAINTAINING TRADITION 1	INITIATING CHANGE 2	PROGRESSIVE 3	TRANSFORMING 4	TRANSFORMED 5	TOTALS
		INCLUDES PRACTICES BELOW	INCLUDES PRACTICES BELOW	INCLUDES PRACTICES BELOW	INCLUDES PRACTICES BELOW	INCLUDES PRACTICES BELOW	
17	CURRIC FLEX	Delivery method and curriculum is rigid and uniform	Teachers have high discretion over delivery in Classrm w/ little oversight	Teachers team to review assessment data	Teachers team to review data, create units + lessons, + evaluate success	Teachers share data as part of regular school improvement	
18	SOCIAL/ EMOTIONL	Focus on academic learning exclusively	Guidance counselor responsible for any social-emotional learning disconnected from Classroom		Social/emotional learning a regular part of curriculum	Advisor-advisee + wellness courses for all students	
19	21st CENT SKILLS	No recognition of 21st Century Skills	Some skills acknowledged but taught as separate content area, like advisor-advisee		Skills integrated in curiculum in random manner subject to teacher initiative	Full integration of skills in all aspects of curriculum	
20	CURRIC- ULUM	Teaching objectives determined by items to be tested	Curriculum objectives traditional and/or standards driven	Curriculum mostly standards-based with occasional inquiry + social skills; 21st Cent Skills		Objectives: inquiry based, social skills, project learning, critical thinking	
21	KNOW- LEDGE	Curriculum oriented to teachers teaching known answers	Occasional indeterminate answer assignments			Issues that have no single answers; problem solving is the focus	
22	TEXT BOOKS	"Textbook is the curriculum", few or no connections among subjects/disciplines, sequential	Textbooks supplemented with original materials	Variety of curricular approaches, largely teacher determined	Variety of curricular approaches, largely district determined	Textbooks used only as data resource support local delivery decisions	
23	PACE + VEHICLES	District/state determine what all students learn + what learning vehicles will be	Teacher determines what all students learn + what learning vehicles will be	Teacher teams determine what students learn + what learning vehicles will be	Students have some determination in learning vehicles	Students determine own personalized learning plan within a rubric	
24	GRADING	Individual teacher responsible for determining policy + grades	School determines policy; teachers determine student grades	Grades established by team of teachers at exhibitions		Grades established by teachers, peers, outside experts + student self assessment	
25	FRE- QUENCY	Occasional testing seen as record keeping	Lag time between testing + feedback	Feedback on tests is quick + formative		Students receive frequent, immediate feedback on interventions (RTI)	
		LEADERSHIP	LEADERSHIP	LEADERSHIP	LEADERSHIP	LEADERSHIP	
26	DISTRIBU- TION	Central Admin + Guidance at front door	Central Guidance but distributed Admin (VP/AP at learning areas)			Admin + Guid at learning areas	
27	SCHEDUL- ING	Room scheduling done by Central Administration	Central room scheduling but occasional teacher discretion		Room scheduling done by Distributed Administration	Room scheduling done by affected teachers	
		PROFESSIONAL DEVELOPMENT	PROFESSIONAL DEVELOPMENT	PROFESSIONAL DEVELOPMENT	PROFESSIONAL DEVELOPMENT	PROFESSIONAL DEVELOPMENT	
28	PROF DEVELOP- MENT	Central admin & state reqmts determine school wide prof. development, uncoordinated	Coordinated state/district PD program	Teachers lead school in prof. development with district/state guidance		Teachers actively reflect on classroom practices, direct prof development within school vision/mission	
29	COMMON PLANNING	No common planning time	Departmental planning time	Teacher team planning time		Teachers develop research projects to inform their own instruction	
		RELATIONSHIP BUILDING	RELATIONSHIP BUILDING	RELATIONSHIP BUILDING	RELATIONSHIP BUILDING	RELATIONSHIP BUILDING	
30	ADVISORS	Guidance counselors believed sufficient to advise students	Group discussions led by guidance counselors	Teachers lead occasional Advisor-Advisee programs w/ vague curriculum	Teachers lead frequent Advisor-Advisee programs w/ vague curriculum	Teachers lead frequent Advisor-Advisee programs with consistent curriculum	
31	KNOWING	Principal does not now names of all students	Students known individually by individual teachers; sharing of knowledge of students among teachers is circumstantial	Student known by teacher team focused on relationship building		Student known by teacher team focused on relationship building + personalizing learning	
		CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS	
32	ADULTS	PTO lends valued support to school; community members not sought out	Parents sought as volunteers for program support		Community members sought as experts and mentors	Multi generation community members sought as experts, tutors, role models	

SCHOOL TRANSFORMATION + DEVELOPMENT MAP 3.1.7

Name(s)_____ School (District)_____

		MAINTAINING TRADITION 1			INITIATING CHANGE 2			PROGRESSIVE 3			TRANSFORMING 4			TRANSFORMED 5			Col 1 = 1 point Col 2 = 2 points Col 3 = 3 points Col 4 = 4 points Col 5 = 5 points Average point value for multi-column issues
		INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			TOTALS
33	ARTICULA- TION	K-12 educational delivery not highly articulated			Occasional curricular connections to sending/receiving school			Occasional educational delivery + guidance connections to schools with lower or higher grade levels			K-12 educational delivery highly articulated			PK-16 educational delivery highly articulated; dual degree programs			
34	COMMUN- ITY	Community uses seen as detrimental to student safety			Evening/weekend community use of limited spaces			Community use of limited spaces						Community users during school day embraced as learning opportunity for students			
		ELEMENTARY			ELEMENTARY			ELEMENTARY			ELEMENTARY			ELEMENTARY			
35	TECHNOL- OGY	No computer use			Computer keyboarding			Students regularly make electronic presentations			Students show teachers use of technology			Regularly virtual learning			
36	GROUPING	Students grouped by age/year level			Students grouped by age/year level; regrouped for RTIs						Age/year groupings, RTIs; teachers loop with students			Multi grade instruction for developmental reasons			
37	EXPLRA- TORY	No/few exploratory programs			Phys Ed, Music are exploratory			Art added as exploratory			Science added as exploratory program			All courses are exploratory			
		MIDDLE YEARS			MIDDLE YEARS			MIDDLE YEARS			MIDDLE YEARS			MIDDLE YEARS			
38	TRACKING	Students are ability tracked			Students ability tracked w/ G+T			Students ability tracked w/G+T + learng ctrs			Students heterogeneously grouped			All students on personal learning plans			
39	SCHOOL CONCEPT	Junior High format even though may be called "Middle School"			Middle School without consistent Houses			School subdivided into houses sized for creating relationships						Perhaps K-8 for developmental + family reasons			
		HIGH SCHOOL			HIGH SCHOOL			HIGH SCHOOL			HIGH SCHOOL			HIGH SCHOOL			
40	TRACKING	Students are ability tracked			Students ability tracked w/ G+T			Students ability tracked w/G+T + learng ctrs			Students heterogeneously grouped			All students on personal learning plans			
41	SCHOOL ORGANIZATN	Departmental organizational structure + facility plan			Departmental w/ special program (Senior Project)			Mixed school organization: i.e. departmental w/9th grade house						Small learning communities: virtual departments to maintain curriculum standards			
42	ELECTIVES	Limited or no elective courses			Goal: wide range of unrelated electives									Thematic learning; career clusters; magnet schools			
43	INTERDISC- IPLINARY	Content areas are not intentionally linked			Occasional teacher driven interdisciplinary links			Core content areas linked: Science-Math, English-Soc Studies						Core content areas and exploratory areas linked			
44	APPLIED LEARNING	No applied learning in school			Tech Ed, Vocational, Career-Tech present but unrelated to core academics						Academics related to Career-Tech programs			Academics imbedded in Career-Tech			
45	CLASS SIZE	Class size based on equity; teaching alone; available # students			Variety in class sized based also on exclusiveness of subject area						Variety in class size based on team teaching			Variety in class sizes based on project teams			
46	TIME TABLE	45 to 60 minute class period			Block schedule, 90 minute class periods						Mega-blocks within schedule			No uniform schedule; determined by teachers (students)			
														EDUCATIONAL DELIVERY AVERAGE OVERALL SCORE			

SCHOOL TRANSFORMATION + DEVELOPMENT MAP 3.1.7

Name(s)_____ School (District)_____

MAINTAINING TRADITION 1	INITIATING CHANGE 2	PROGRESSIVE 3	TRANSFORMING 4	TRANSFORMED 5

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Average point value for multi-column issues

		INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			TOTALS	
		FACILITIES	N	F	FACILITIES	N	F	FACILITIES	N	F	FACILITIES	N	F	FACILITIES	N	F	NOW	FUTURE
		ALL GRADES			ALL GRADES			ALL GRADES			ALL GRADES			ALL GRADES				
		OVERALL PLANNING			OVERALL PLANNING			OVERALL PLANNING			OVERALL PLANNING			OVERALL PLANNING				
1	SIZE/ CAPACITY	Circumstantial overall building size/capacity			School size set for administrative/operational efficiency; no small schools within			Efficient school size/capacity, non-autonomous schools within school			Efficient school size/capacity, semi-autonomous schools within school			Intentional building size/capacity to foster relationships; autonomous small schools/teacher teams within				
2	FUTURE PROOF	Spaces/furniture inappropriate for current educational methods: wrong sizes, locations, services, equipment			Spaces/furniture rigid: conceived to serve one concept of current educational models			Spaces/furniture allow several current educational deliveries with difficulty			Spaces/furniture allow several current educational deliveries with ease			Spaces/furniture flexible/agile to anticipate future educational trends				
3	COLLABOR-ATION	Facility makes it almost impossible for teachers to collaborate			Facility supports occasional/non-synchronous teacher collaboration			Facility supports regular/non-synchronous teacher collaboration			Facility supports regular/synchronous teacher collaboration			Facility supports teacher collaboration + control of schedule + space				
4	VISIBLE LEARNING	No attempt to make learning visible			Bulletin boards in corridors			Bulletin boards, display cases for academics			Bulletin boards, display cases, windows to classrooms, video monitors			Learning highly visible through transparency, display, activities				
5	FLEXIBIL- ITY	Spaces rigid in design; no flexibility			Flexibility only in some folding partitions; never used			Flexibility in folding partitions; often used			Many spaces are flexible for multiple uses			Spaces flexible w/ minimal effort; agile for reuse w/o physical change				
6	SOCIAL SETTING	Circulation conceived in minimal terms of moving people: Corridors + lobbies only			Functional circulation with notable public expression at Lobbies			Circulation centers on social gathering space(s) as focus of school			Central gathering space(s) + "hang out" spaces			Central social gathering space(s), "hang out" spaces + student centric social/work spaces				
7	EXPRES- SION	No intentional building expression			School colors are primary school signature			Special effort made at Main Entry; school colors prevail			School signature expressed in occasional places			School signature widely expressed throughout building				
8	SCHOOL ORGANI-ZATION	Plan based on single idea traditional of school organization: departmental, grade level, etc			Traditional planning but allows mixed grade levels			Flexible/agile school plan allows several school organizations; 9th grade house						Relationship-based plan to best support Column 5 educational delivery				
9	INTERDISC-IPLINARY	Building plan: highly separate, unrelated functional areas; does not facilitate public access to community uses			Building plan: highly separate, unrelated functional areas; zoned for public access to community spaces			Building plan strategically relates functional areas; zoned for public access to community spaces			Building plan links different program areas to facilitate interdisciplinary learning within core; zoned public uses			Building plan links program areas for interdisciplinary learning among core + specials; zoned public uses				
10	MOVEMENT	Student movement expected to be across entire building; hall passes			Student movement controlled by teachers; hall passes			Building guides student movement within non-autonomous subzones			Building guides student movement within intentional focused subzones			Small school or movement only within relationship zones; hall passes are passe				
11	AUTONOMY	Self-contained school but missing some functional spaces			Self contained school with all appropriate functions			Intended as self-contained but relies occasionally on nearby institutions for program use						Intentionally not self-contained: relies heavily on neighboring institutions				
12	COMMUNITY	No spaces for community use			Gym, Café, Auditorium occasional community use			Community access well planned + zoned			Community uses co-habitate building: Elderly Center, Clinic, Public Lib			Public + private community spaces used regularly by students				
13	MIXED USE	Single use school building			School shares site with other public uses: Library, Recreation			School shares site with business/residential			School shares site synergistically with business/residential			School planned to partly convert to other uses when enrollments drop				
14	LEADERSHIP	Admin + Guid central but hard to find			Central Admin + Guid at front door			Central Admin; distributed Guidance spaces						Distributed Guid + Admin				
15	PARENTS/ VOLUNTRS	No spaces oriented to parents			Parents access Library or Admin			Parent Room			Volunteer Room			Parent Room + Volunteer Room				

SCHOOL TRANSFORMATION + DEVELOPMENT MAP 3.1.7

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		INCLUDES PRACTICES BELOW		INCLUDES PRACTICES BELOW		INCLUDES PRACTICES BELOW		INCLUDES PRACTICES BELOW		INCLUDES PRACTICES BELOW		TOTALS
		SPECIFIC SPACES		SPECIFIC SPACES		SPECIFIC SPACES		SPECIFIC SPACES		SPECIFIC SPACES		
16	TRANSPAR-ENCY	No windows to corridors		View panels at doors		Windows to Commons spaces, other Classrooms allow teachers to observe students working separately/independently				Abundant windows connecting all spaces, including Teacher + Admin		
17	GROUPING	Building conceived as unrelated Classrooms along Corridors		Classrooms related to others of similar use		Separate Classrooms arranged with others of different use to support interdisciplinary, multi age/grade learning				Building conceived as suites of flexible learning spaces		
18	SMALL GROUPS	No small learning spaces		Few small group learning spaces irregularly located						Variety of small learning spaces closely related to core spaces + Med Ctr		
19	ARTS	No Visual/Perf Arts spaces		Inadequate Visual/Perf Arts spaces		Spaces adequate, related to other "specials" but not related to core spaces				Adequate arts spaces located to integrate w/ core learning		
20	SPECIAL ED	Separate Spl Ed spaces		Spl Ed in ad hoc spaces converted from other uses, too big/too small		Spl Ed '"pull out" model; Resource Rooms + Self Contained				Inclusion model; minimal exclusive Spl Ed spaces		
21	PE/ ATHLETICS	Inadequate space for Phys Ed		Gym for Phys Ed/Intramurals/Athletics		Multipurpose Gym designed with good acoustics for assembly use				Gym/Pe/Atlhetics facilities used by community		
22	TECH ED	No Tech Ed or "hands on" applied learning spaces		Tech Ed spaces, unrelated to core spaces				Tech Ed spaces easy access from core spaces		Tech Ed spaces integrated with core curriculum + spaces		
23	WET LABS	Highly specific labs: Science Labs designed for different sub sciences		Multi-purpose Science Labs; other disciplines separate						Labs are all flexible Wet Labs: Science=Art=Home/Fam=Tech Ed		
24	CLASS- ROOM SIZES	Irregular Classroom sizes seen as inequitable		Uniform Classroom size: equitable				Classroom sizes vary to match size of student groups		Variety of learning spaces supporting teachers collaborating with varied groups		
25	DRY LABS	Insufficient Computer Labs		Sufficient Computer Labs		Computer/Dry Labs flexible for future conversion to other uses				Laptop computers; no Labs needed		
26	MEDIA CTR	Media Ctr contains print media only		Media Ctr contains print + electronic media		Media Ctr demand reduced by classrooms contain electronic media		Media Ctr rethought as collaborative work/meeting/information place		Media Ctr partly virtual, distributed in several locations		
27	ASSEMBLY	Assembly needs not served by facilities		Assembly needs served poorly: in Gym or Café; no Stage		Cafetorium with adequate Stage		Auditorium sized for occasional peak use		Auditorium stage sized for teaching & learning, seating as few as possible		
28	TEACHER PLANNING	No common teacher spaces except Lounge or Dining		Conf Rooms for teacher use		Teacher "hotels" + Conf Rms for common planning time				Teacher Planning Ctrs with Conf + Food		
29	CONNEC- TIONS	Self contained classrooms with no connecting doors/walls		Folding walls between few classrooms, always closed		Doors/barn doors between classrooms		Variety of doors, folding walls, windows to adjacent spaces allow flexibility		Suites of flexible spaces for varied uses		

SCHOOL TRANSFORMATION + DEVELOPMENT MAP 3.1.7

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		INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			INCLUDES PRACTICES BELOW			TOTALS	
		FOOD SERVICE			FOOD SERVICE			FOOD SERVICE			FOOD SERVICE			FOOD SERVICE				
30	FOOD CHOICES + PREP	Menu includes no fresh food, one menu choice each day			Menu includes no fresh food, multiple menu options offered, breakfast & after school meals offered			Menu includes fresh, locally grown food, multiple menu options, breakfast + after school meals offered			Menu includes fresh, locally grown food, multiple menu options prepared by staff and learners, breakfast + after school meals offered			Menu includes fresh, locally grown food, multiple menu options. Grown and prepared by staff and learners, breakfast + after school meals offered				
		SUSTAINABLE DESIGN			SUSTAINABLE DESIGN			SUSTAINABLE DESIGN			SUSTAINABLE DESIGN			SUSTAINABLE DESIGN				
31	ENVIRON IMPACT	No sustainable design focus			Building design focused on energy savings			Building design incorporates energy savings, day lighting and low impact building materials			Building design minimizes impact on environment, integrates design, construction and operation of building into curriculum			Building seeks carbon neutral impact, integrates design, construction and operation of building into curriculum				
		FURN + EQUIP			FURN + EQUIP			FURN + EQUIP			FURN + EQUIP			FURN + EQUIP				
32	TECH INTE-GRATION	Virtually no technology; no phones in classrooms			Basic, non-integrated technology; intercom; no classroom phones			Partial integrated technology; classroom phones			Integrated tech. including interactive bds, doc proj; controls for all to use			Integrated technology; students use PDAs, cell phones, notebooks, Kindles				
33	STUDENT FURNITURE	Single purpose connected desk/seats designed for lectures			Desks w/ movable seats, not groupable			Flexible desks + chairs, groupable			Flexible adjustable height ergonomic desks, chairs, bean bags			Students work in personal workspaces				
34	CABINETRY	Little or no cabinets/shelving in teaching spaces			Basic fixed cabinetry; not enough to serve needs			Fixed cabinetry sufficient for basic needs			Fixed cabinetry meets all storage needs			Flexible, adjustable cabinetry on wheels; groupable to change space				
35	COMPUTER RATIO	10:1 student: computer ratio			6:1 student: computer ratio			4:1 student: computer ratio; selective use of laptops			2:1 student: computer ratio; laptops on carts			1:1 student: computer ratio; laptops, PDAs, tablets for all				
														FACILITIES AVERAGE OVERALL SCORE				


Safety + Security
Frank Locker PhD
fl@franklocker.com
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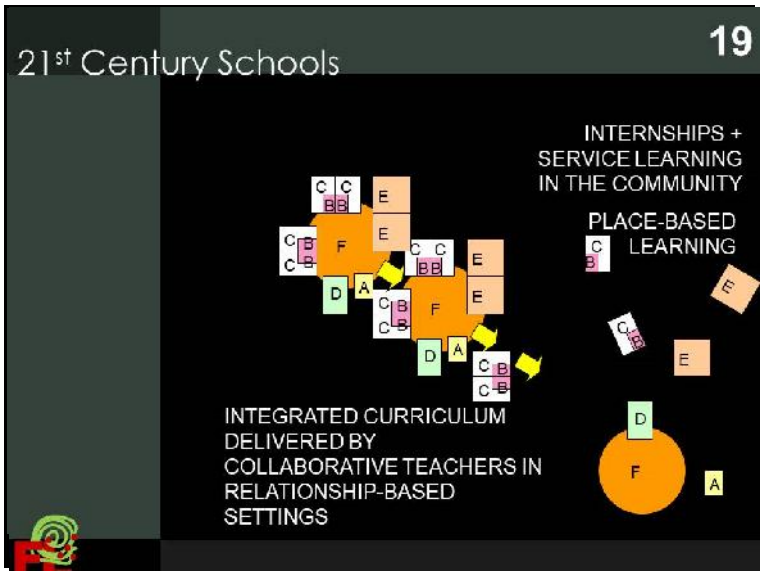
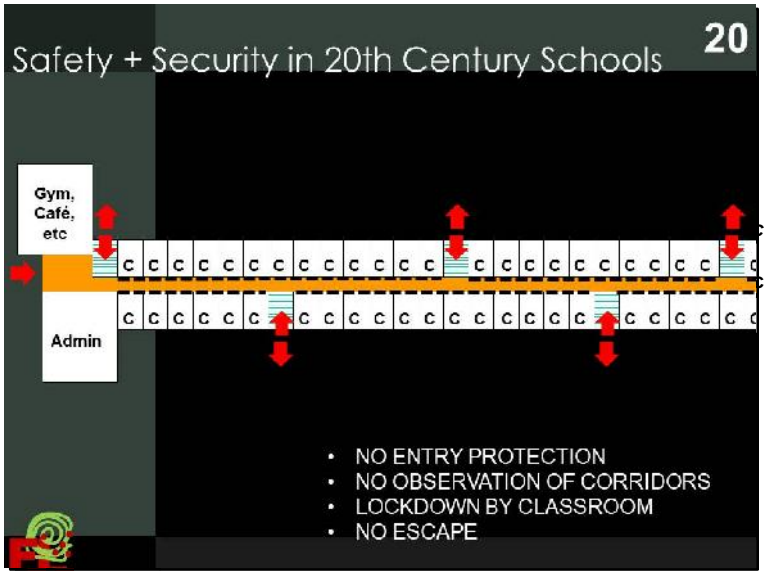
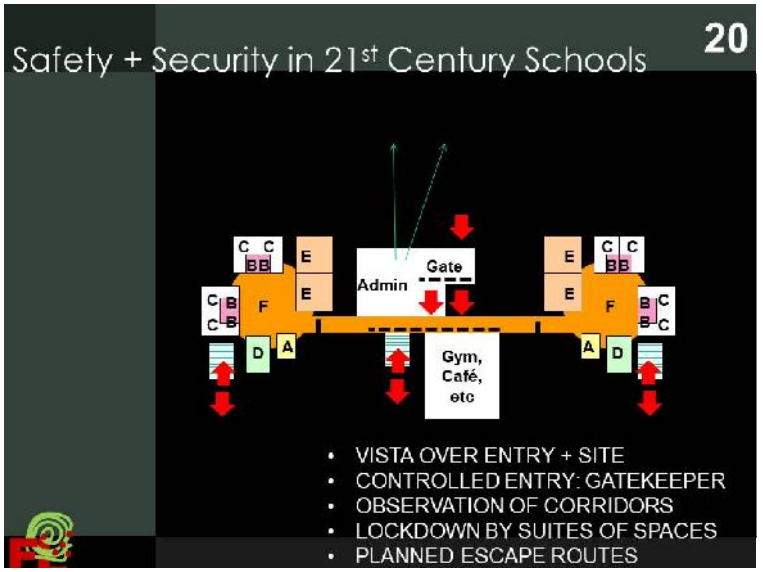

21st Century Schools
19
INTERNSHIPS + SERVICE LEARNING IN THE COMMUNITY
PLACE-BASED LEARNING
INTEGRATED CURRICULUM DELIVERED BY COLLABORATIVE TEACHERS IN RELATIONSHIP-BASED SETTINGS


Safety + Security in 20th Century Schools
20
Gym, Café, etc
Admin
NO ENTRY PROTECTION
NO OBSERVATION OF CORRIDORS
LOCKDOWN BY CLASSROOM
NO ESCAPE


Safety + Security in 21st Century Schools
20
Admin
Gate
Gym, Café, etc
VISTA OVER ENTRY + SITE
CONTROLLED ENTRY: GATEKEEPER
OBSERVATION OF CORRIDORS
LOCKDOWN BY SUITES OF SPACES
PLANNED ESCAPE ROUTES