

BENSON POLYTECHNIC HIGH SCHOOL | MASTER PLANNING COMMITTEE

PORTLAND PUBLIC SCHOOLS FEBRUARY 4, 2016



AGENDA

Benson Polytechnic High School Master Plan Committee (MPC)

Meeting #2 Agenda

Facilitator: 2 Karina Ruiz, DOWA-IBI Group Meeting:

Meeting Date: February 4, 2016 Location: Benson HS — Cafeteria

Duration: Record Taken By: DOWA-IBI Group 6:00pm — 8:00pm

6:00pm Welcome and Charter Review

6:10pm 2016 PPS Bond Forecast

6:25pm Vision & Guiding Principle Review

6:35pm Space Characteristics Exercise

7:15pm Due Diligence Update — Understanding the Knowns

Next Generation Learner Presentation 7:30pm

7:55pm Closing & Next Steps

*Meeting record will be posted on the Benson High School bond website at http://www.pps.k12.or.us/bond/10958.htm



MASTER PLANNING COMMITTEE

PAUL ANTHONY

School Board Representative. Benson Parent

DALE BAJEMA

Alumni, Benson Boosters, Benson Site Council

MAYA BROWN

Benson Student

ILSA BRUER

Benson Teacher

KEVIN B. CLARK

Benson Alumni. Business Association, Higher Ed/Business for STEM

ANGEL DAWSON

Benson Parent

MICHELLE FUSAK

Benson Parent

BRIAN GERBER

Teacher, Benson Cluster Parent

REUBEN GILMORE

Benson Parent, Alumni

TAMMY HITE

Teacher, Alumni, Partners

ANGELA JARVIS HOLLAND

Benson Parent. Students of All **Abilities**

LUKE HOTCHKISS

Benson Teacher, Alumni

ERIC HUTCH

Benson Alumni

JANAF JAMISON

Benson Teacher

ROB JOHNS

Alumni, Business Association, Legacy Graduate

KRISTIN KENNEDY

Benson Teacher

DAVE KETAH

Benson Cluster Parent, Neighborhood Association, Parent

BACHTUYET LE

Benson Alumni

JACOB M. MASTERS

Benson Student

IRINA PHILLIPS

Neighborhood Association, Benson Parent

JIM PIRO

Alumni, Industry

ED RAILEY

Benson Teacher

CHRISTINA RAM

Benson Alumni

LEIGH ANNE SCHERER

Benson PTSA

JAMES TOMPKINS

Benson Student

JULIE TONROY

Business Association, Partners

MATT PELLICO

Benson Teacher

BRYAN SMITH

Benson Teacher

RICHARD (DICK) SPIES

Alumni, Partner

LISA WHITE

Benson Parent, Boosters

CURTIS WILSON JR.

Benson Principal

REBECCA ZICH

Benson Student







MASTER PLANNING COMMITTEE REVIEW

Mission:

To aid in developing comprehensive, equitable, integrated and visionary high school campus master plans with authentic school community engagement.

Purpose:

The Master Planning Committee (MPC), for the Benson High School Campus, will be involved in the master planning process; the Committee's concerns and aspirations will be understood and considered and will influence the master plan alternatives developed. The Committee will be part of a collaborative process including school staff, the general public, the consultant design team and project staff.

The Committee Will:

- Represent their stakeholder groups by bringing their constituents' ideas to the committee work-sessions and regularly communicating back to their stakeholders about the work-sessions and process.
- Review background documents including the Long Range Facilities Plan, Education Facilities Vision and relevant Education Specifications.
- Review school, site, cost and jurisdictional factors which must be considered in determining master plan options.
- Help develop effective communication strategies to reach entire school community for public participation events.
- Contribute to master plan visioning, guiding principles and programming.
- Assist with public workshops and open house events.
- Regularly attend work-sessions during the programming and master planning processes.

The master planning process will conclude with Board of Education presentation and approval.



2016 PPS BOND FORECAST | SPEAKER



Jon Isaacs,Portland Public Schools,
Chief of Community Involvement and Public Affair



MPC | Summary of Group Work with Proposed Vision

Greatest Wish

- A sustainable outcome both for the educational program and the building itself
- Focus is on the students, socially and academically
- Transparency in process and outcomes
- Benson history and legacy serves as foundation for the future growth of the school

Greatest Fear

- Key decisions will be made by others not participating in this process
- Schedule and budget will cause poor long term decision making
- Process will erode trust and pride in Benson

How Will We Define Success?

- Student centered and forward looking:
 - Students want to be here,
 - Teachers want to be here
- Benson reputation grows as a unique center of excellence
- Community connections are strengthened - neighborhood, alumni, business and educational partners



Staff Meetings | Summary of Group Work with Proposed Vision

Greatest Wish

- Student centered school: socially, emotionally, and academically
- Integrated and collaborative learning environment
- Sustainable, warm and welcoming

Greatest Fear

- Benson staff won't be listened to in the process
- Inadequate teaching spaces and lack of collaboration opportunities
- Extra-curricular activities considered as non-essential
- Not having a secure campus

How Will We Define Success?

- Benson Pride school feels like home
- Sense of Ownership teachers and students want to be here
- Innovation and collaboration happen naturally
- Recognized as flagship for CTE in Oregon and nationally



Staff Meetings | Summary of Group Work with Proposed Vision

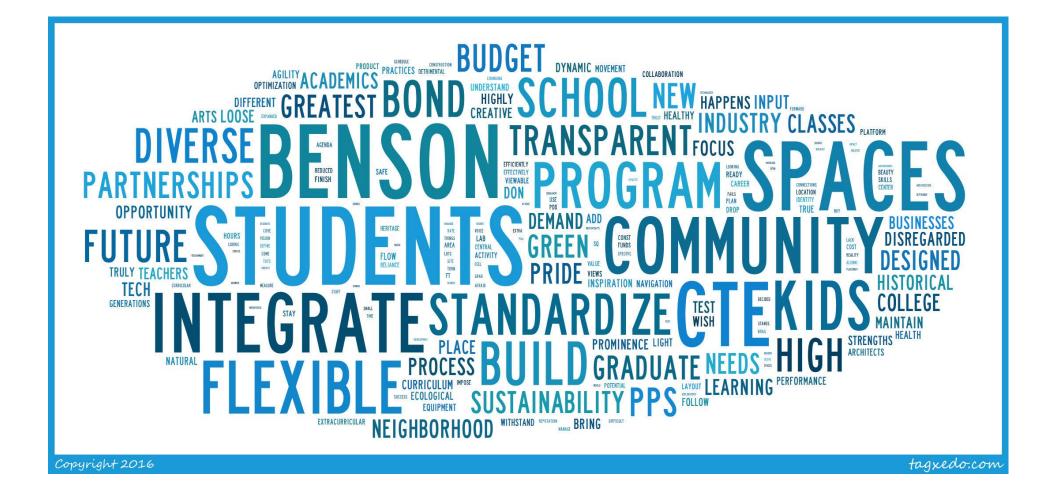
What is Most Significant Aspect of the Benson Experience that Should be Carried Forward into the Future?

- Learning is connected to real world experiences
- Depth and variety of CTE opportunities
- Opportunities for student growth in both CTE and academic programs

What is the Greatest Challenge to Student **Success at Benson Currently?**

- Appropriate and adequate space for learning
- Out of date equipment and technology
- Limited variety of non-CTE curriculum







Vision for Future of Benson Polytechnic High School

Benson Polytechnic High School will be a collaborative, student centered environment grounded in the traditions of the Benson experience, with a future that is sustainable and forward looking. This will be a school that exemplifies the potential of integrated CTE and Academic learning, further enhancing Benson's legacy as a center of student achievement and excellence.

"Learning is rich here!"



SPACE CHARACTERISTICS

How can space encourage positive social interaction and collaboration?



SPACE CHARACTERISTICS

How can physical environments facilitate creative problem solving?



- Architectural
- Historic
- Building Envelope
- Site Utilities
- Landscape
- Structural
- Mechanical
- Electrical & Fire Alarm
- Building Technology
- Theater
- Food Service



Consultants: Architectural

DOWA-IBI Group

Historic

Peter Meijer Architect

Building Envelope

Morrison Hershfield

Site Utilities

KPFF

Landscape

Percival Landscape Architecture

Structural

ABHT

Mechanical

Interface Engineering

Electrical & Fire Alarm

Reyes Engineering

Building Technology

Interface Engineering

Theater

PLA Associates

Food Service

Halliday Associates



Architectural

- Historic structure added to and modified numerous times.
- Classroom size and use:
 - General classroom size is small
 - Confirm appropriate size for CTE spaces
 - Inadequate space for various programs (Ex: Fine Arts)
- Lack of interior and exterior social space.
- Educational departments isolated from each other.
- Functional vehicular access to the various building areas for deliveries and emergency access is not efficient.

- Building code issues:
 - Main building is in excess of allowable code area
 - Additional rated walls may be required
 - ADA access not consistent throughout building
- Inconsistent Interior Design cohesion .
- Lack of "zoning" for control of non-school uses.



Historic

The highest preservation priorities at BPHS include:

- Preserving the original massing and scale of the west and north units; primarily the main building, auditorium, old gym, and to a lesser extent the north wing.
- Preserving the school's main entrance sequence and vestibule.
- Preserving the original size, volume, and details of the auditorium and old gym.
- Preserving the original size, volume, and details of the double-loaded corridors and stairs in the main building, and the original brick corridors where existing.
- Preserving the original windows and fenestration of the west and north units.



Building Envelope

- Wood Windows: Conditions vary due to exposure.
 - South and West poor
 - North and East good to fair
- Steel Windows: Many will require removal and rework.
 - South heavy corrosion.
 - North moderate corrosion.
- Aluminum Windows: Fair condition, replace in 5 – 10 years.
- Roof Systems:
 - Low-sloped roofs range from poor to good.
 - Steep-sloped roof areas are in poor condition.

- Masonry:
 - Clay brick units show minimal cracking with some cracked units at building corners.
 - Repointing on 15% 30% of joints recommended.
 - Terra cotta elements require minor repair.



Site Utilities

- Sanitary waste and storm water lines are co-plumbed.
- Storm water collected onsite must conform to the City of Portland BES hierarchy required for treatment and discharge.
- No code-imposed minimum parking requirement.
- Onsite for the code-mandated bike parking may be a challenge; 50% covered.
- Similar site and space concerns for the required trash enclosures.

Landscape

- Main west lawn and entry needs to be studied for ADA access and to improve the feeling and use of this important portion of the site.
- Lack of exterior gathering space for students and visitors.
- Existing site memorials and a "Benson Bubbler" should be considered in the master plan.
- Condition of exterior paved pedestrian surfaces, stairs, and railings are poor.
- Existing landscaping should be studied for ease of maintenance as well as enhancing the building.
- No existing irrigation system.
- Gleason Street parking lot does not meet landscaping and buffering requirements.
- Routes to the building and parking currently not ADA compliant.



Structural

- Add code compliant lateral resisting elements (i.e. concrete shear walls or steel braced frames) and foundations.
- Brace all unreinforced masonry (URM) walls/ parapets.
- Retrofit roof diaphragms and their anchorage to perimeter walls.
- Provide secondary gravity support for structure supported by URM walls.
- Reduce building mass (i.e. eliminate interior URM walls, etc.).
- Introduce seismic joints between building segments.

Mechanical & Plumbing

- The entire mechanical system is well beyond the end of its service life and should be replaced. There are issues of indoor air quality as well as thermal comfort for building occupants.
- The building should be upgraded to have a full DDC control system which will enhance scheduling capabilities and improve energy efficiency.
- The majority of the building's plumbing system is well beyond the end of its service life.
- The fire sprinkler system should be replaced
- The existing exhaust/make-ups air systems serving the shop areas should be replaced.



Building Technologies

- The horizontal and backbone cabling infrastructure should be replaced using PPS standards.
- Install a paging system for building wide communication that includes emergency notification.
- Provide building access control at main entrances (minimum) and control all electronically controlled doors with a lockdown button.
- Install a video surveillance system per the district standards.

Mechanical & Plumbing

- Electrical power distribution system is varying in age of installation from the 1960's to the 1990's.
- The older distribution equipment and branch panels do not meet the current NEC requirements.
- The four CTE wings (C, D, E and F) are recommended to have an increased size of the electrical distribution room to comply with NEC requirements for ARC Flash safety.
- The Fire alarm system is relatively new and can be expanded or reconfigured to handle building reconfiguration.
- Lighting is largely provided by 48-inch long, T8 fluorescent lamps with electronic ballasts with minimal use of occupancy sensing for control.
- Local task lighting for higher visual acuity on skilled machine work is recommended.
- Light Emitting Diodes (LED) is recommended for increased energy efficiency and lower maintenance.



Theater

- This facility is very old, but enjoys strong cultural and historic significance to the community it serves.
- At 1,700 seats, the house is extremely large compared to contemporary high school performance spaces.
- The basic "bones" of this facility are good, although it does not comply with current building codes, ADA, and many recommended practices for contemporary educational performing arts facilities.
- With appropriate renovations to the building, and replacement/modernization of the performing arts equipment and systems, this facility appears as a practical candidate for modernization success.
- It should be expected that modernization of the building elements to comply with current codes and practices may result in the loss of seating, upwards of 30+%.

Food Service

- Cooking equipment upgrades needed for future capacity.
- Refrigeration systems may not be adequate for future capacity.
- Hand washing sinks to meet current codes.
- Grease interceptor may need replacement.
- Servery counter appearance is out of date.
- Serving equipment upgrades needed for future capacity.



DUE DILIGENCE — CONTEXT SITE PLAN





DUE DILIGENCE — F.A.R. CONCEPT









Retain Historic Building

• Existing building to remain concept (basement included) 164,619 sf

Retain Historic Building

Existing ground floor footprint
 New building floor footprint concept
 Total footprint combined
 227,307 sf

• Max building footprint combined new and old max not to exceed 70% site area

Existing ground floor footprint 79,239 sfNew building floor footprint concept

265,280 sf

cannot exceed 186,041 sf

FAR 2:1 limits

Existing site at 378,972 sf (2) = total allowable FAR
 Existing building to remain concept

• New concept building area not to exceed 593,325 sf



Concept Site Plan: Existing



Concept Site Plan: Demolition



Concept Site Plan: Existing to Remain



Concept Site Plan:

FAR full build max concept

•EXISTING Building to remain concept
•NEW Building overall area
(height limit at 75ft,
set back at 38 ft off property line)

OVERALL TOTAL INCLUDING NEW AND OLD

164,619 sf
592,808 sf
757,427 sf

•Min landscape area min. 20% site area 75,794 sf

NEXT GENERATION LEARNERS





THE NEW LEARNING PARADIGM

GENERATION Z: CONNECTED FROM BIRTH.

Born mid-1990s to 2010.

*Generation Z data compiled by Sparks & Honey

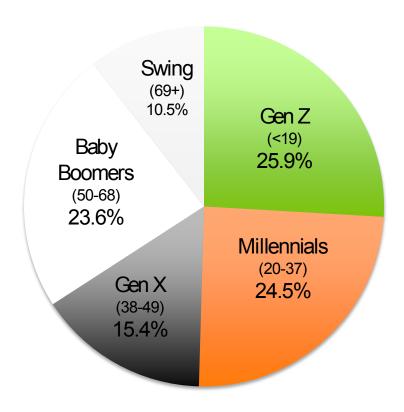


Introducing the New Generation: "Gen Z"
People born after Gen Y (from 1995 to present)
who are currently under the age of 18.



THE NEW LEARNING PARADIGM

More than a quarter of America's population belongs to Gen Z, and with each birth, the segment is growing.



These are the learners sitting in your designed classrooms.

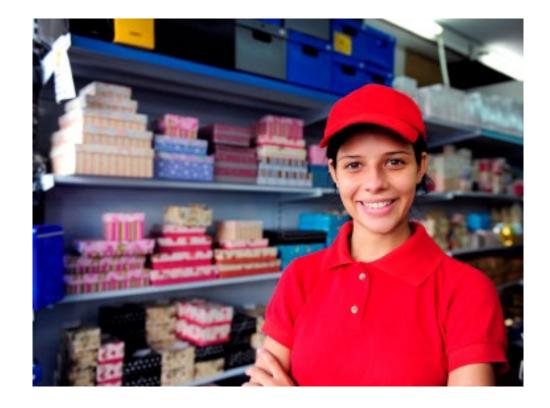


76%

of Gen Z wish their hobby would turn into a full-time job (compared to 50% of millennials)

55%

of high school students feel pressured by their parents to gain early professional experience



4 IN 5

high school students believe they are more driven than their peers

Eager to start working: Parents encourage Gen Z to find jobs early and independently without their help.

Source: Creative Artists Agency & Intern Sushi (2014) Millennial Branding & Internship.com, surveyed 4,597 students (172 HS and 4,597 college): American Freshman Survey

60%

of Gen Z want to have an impact on the world with their jobs (compared to 39% millennials)

26%

of 16 to 19 year olds are currently volunteering



They intend to change the world.

Source: Creative Artists Agency & Intern Sushi (2014) U.S. Department of Labor, 2013



1 IN 4

American Children are living in poverty. (Texas: 26% of children are living in poverty | 40 lowest in the United States)

73%

of Americans were personally affected by the Great Recession

43%

of 7 to 13 year olds feel school violence/shootings will have the biggest impact on their generation



Gen Z were developing their personalities and life skills in a socio-economic environment marked by chaos, uncertainty, volatility and complexity. Think "Hunger Games", and "Divergent." Learn how to be resourceful, kids.

Source: Rutgers 2013, Annie E. Casey Foundation 2013: The Cassandra Report. Spotlight on Poverty and Opportunity, 2014



They were raised in an American education system focused on mainstreaming and classroom diversity. As a result, they are collaborative team players where everyone is equal at winning and losing.



Their education system focuses on inclusive classrooms and differentiated instruction.

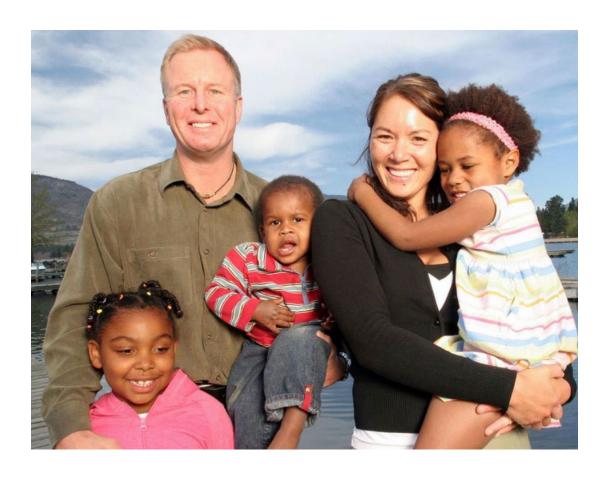


+400%

Increase in multiracial marriages (black and white) in the last 30 years (with a 1,000% increase in asian-white marriages)

+50%

increase in the multiracial youth population since 2000



Multiracial children is the fastest growing youth group in the U.S.

Source: Census: "The Two of More Races Population: 2010 Census Brief" American Academy of Child and Adolescent Psychiatry



Studies are showing the adverse effects of helicopter parenting, parents of Gen Z have been discouraged from mollycoddling. As a result, Gen Z have been given more space than Millennials, accessing answers and inspiration on the Internet, and are more self-directed.



Parenting styles have shifted.

72%

of high school students want to start a business someday (compared to 64% of college students)

61%

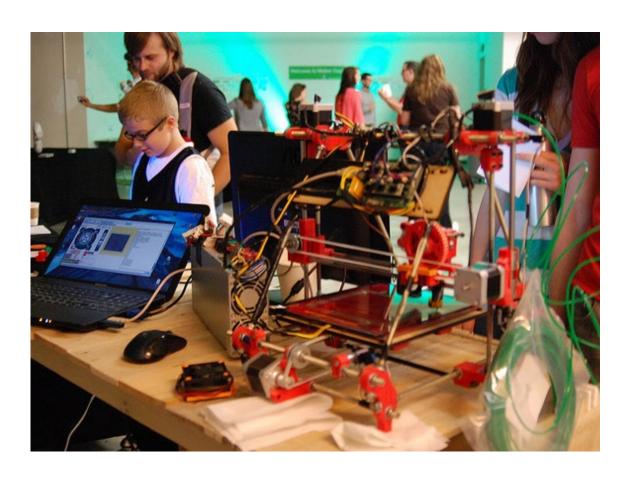
Of high school students want to be an entrepreneur rather than an employee (compared to 43% of college students)



Entrepeneurship is in their DNA.

Source: Millennial Branding and Internship.com, 2014, Mintel 2014





More than 90,000 students enrolled in grades 5-12 have the rare entrepreneurial talent to help create more jobs within the U.S.

Source: Gallup and Operation HOPE: A survey of 1,009 students in grades 5-12



1 in 2

Gen Z kids will be university educated (compared with 1 in 3 for Millennials and 1 in 4 for Gen X)



They seek education.

Source: JWT Intelligence 2012: Edudemic Survey



52%

Of teens use YouTube of other Social Media sites for a typical research assignment in school



Learn Italian for Travel Lesson 1- Pronunciation



Social media is used as a research tool.

Source: Pew Research, "How teens do research in the Digital world" 2012





They multi-task across 5 screens.

Source: JWT Intelligence



Their attention spans are getting shorter.

8 SEC

Is the average American attention span (down from 12 sec in 2000)

11%

Of children 4-17 years old have been diagnosed with adhd (up from 7.8% in 2003)



Gen Z are the ultimate consumers of snack media. They communicate in bite sizes. Research studies suggest that their brains have evolved to process more information at faster speeds, and cognitively more nimble to handle bigger mental challenges. But, getting and keeping their attention is challenging.

Source: national center for biotechnology information, U.S. National library of medicine, the associate press



Gen Z have always known how to zoom, pinch and swipe. They have grown up with hi-def, surround-sound, 3D and now 4D -- 360 degree photography and film is their norm. Ultra slow motion and hi-speed video is their standard. They have an app for that.

2005

The year google maps launched with its satellite and zooming functions



They think spatially and in 4D.



They communicate with symbols or Emojis.

Source: Pew Research, 2012



68%

Of teachers think that digital tools make students more likely to take shortcuts and not put effort into their writing

46%

Of teachers say digital tools make students more likely to "write too fast and be careless"



They communicate with speed.

Source: Pew Research, 2012



41%

Of gen z spend >3 hours per day on their computers for non-schoolworkrelated purposes (compared to 22% a decade ago)



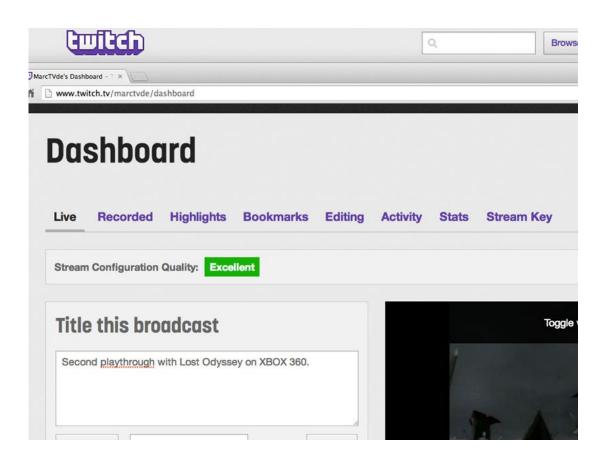
They spend more time with computers.

Source: WebMD (CDC Survey 2014)



#1

Live-streaming platform in the world is twitch, which features live video gameplay, news and chat



They live stream and co-create.

Source: JWT Intelligence



81%

Of online teens use some kind of social media

26%

Of gen Z would need to fly to visit most of their social network friends



Their social circles are global.

Source: Pew Research Center and JWT Intelligence



80%

Know about man's impact on the planet

77%

Are concerned about children around the world dying of preventable disease

78%

Are concerned about world hunger

7/10

Feel optimistic about the future of the environment

9/10

Continue to feel optimistic about their own futures

76%

Are concerned about a man's impact on the planet



Gen Z is hyper-aware and concerned about man's impact on the planet.

Source: Unilever Project Sunlights How Children Inspire Sustainable Behavior in Adults, August 2013; JWT Intelligence



So, now what?



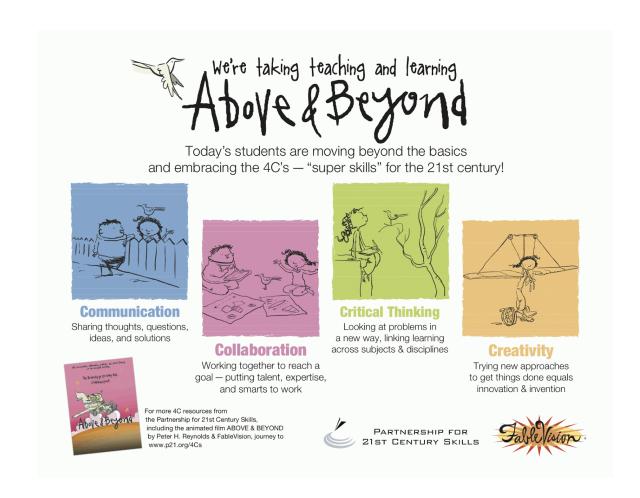


Communication

Collaboration

Critical Thinking

Creativity







Communication

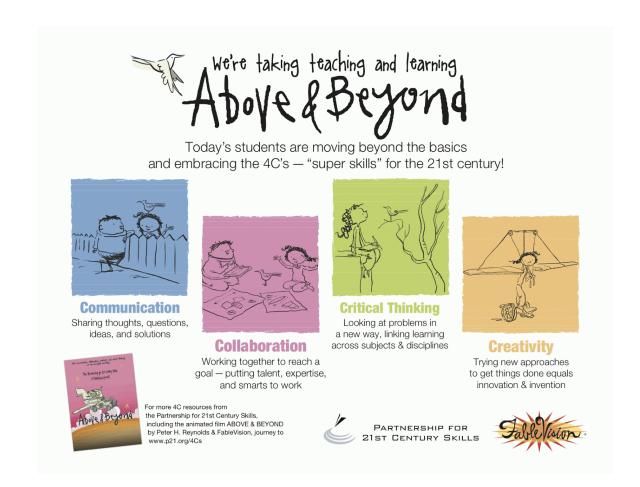
Collaboration

Critical Thinking

Creativity

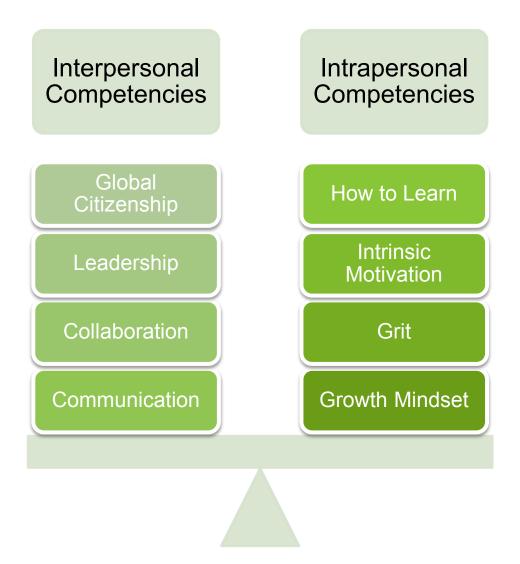
Character

Cultural Competency



The Four C's + Two

Teaching Interpersonal + Intrapersonal Competencies:





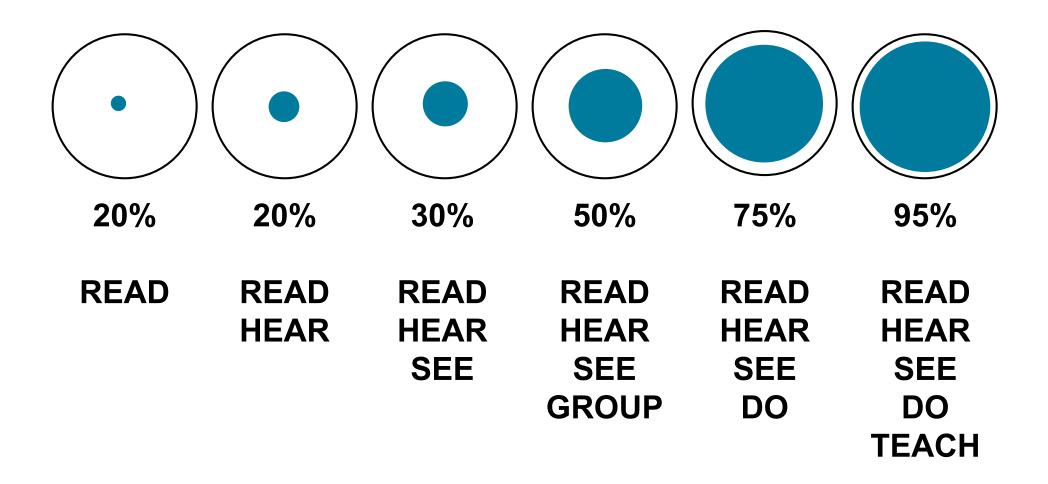
Understanding Social + Emotional Learning: Teaching self awareness, self-management, social awareness, relationship skills, and responsible decision making.





PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER





Knowledge Retention



Programme for International Student Assessment

U.S. students lag behind international peers

In tests of reading, math and science, U.S. 15-year-olds were outperformed by many of their counterparts in Asia and Europe — in some cases placing below the international average.

	READING	Avg. 496		MATH	Avg	. 494		SCIENCE	Avg. 501
1.	Shanghai (China)	570	1.	Shanghai (China)		613	1.	Shanghai (China)	580
2.	Hong Kong (China)	545	2.	Singapore		573	2.	Hong Kong (China)	555
3.	Singapore	542	3.	Hong Kong (China)		561	3.	Singapore	551
4.	Japan	538	4.	Taiwan		560	4.	Japan	547
5.	S. Korea	536	5.	S. Korea		554	5.	Finland	545
6.	Finland	524	6.	Macao (China)		538	6.	Estonia	541
7.	Ireland	523	7.	Japan		536	7.	S. Korea	538
8.	Taiwan	523	8.	Liechtenstein		535	8.	Vietnam	528
9.	Canada	523	9.	Switzerland		531	9.	Poland	526
10.	Poland	518	10.	Netherlands		523	10.	Canada	525
24.	U.S.	498	36.	U.S. 48	1		28.	U.S. 49	7

Thinking Continuum





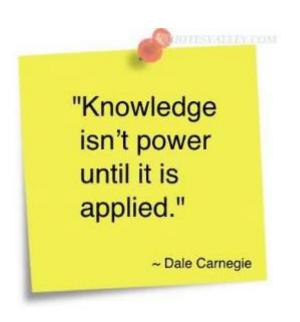
Assimilation of Knowledge



Adaption of Knowledge

Action Continuum



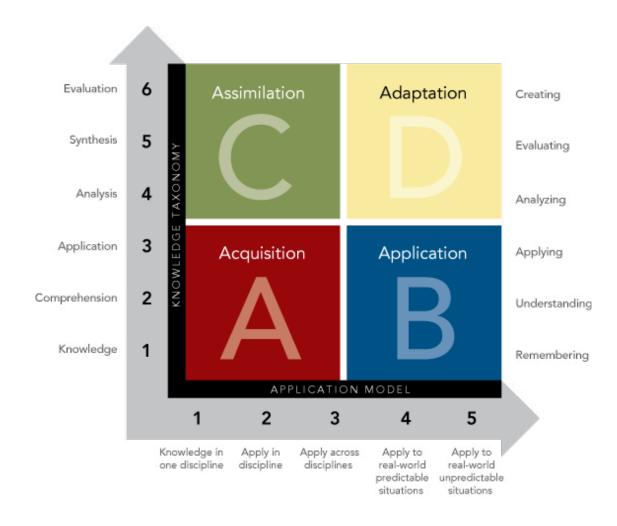


Acquisition of Knowledge



Application of Knowledge

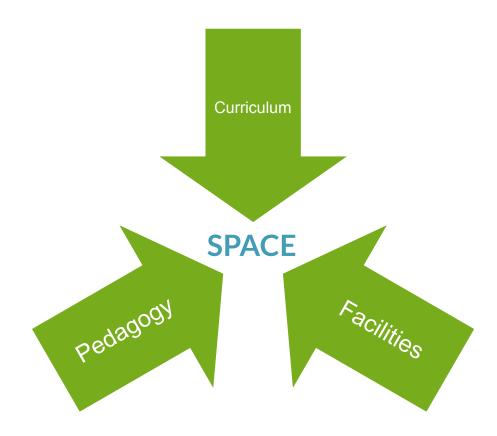
The Rigor Relevance Framework



Source: International Center for Leadership in Education



The future of learning is not just about the physical space. It's about a convergence of major key factors:



...but, the space can be the biggest catalyst for change.





1920

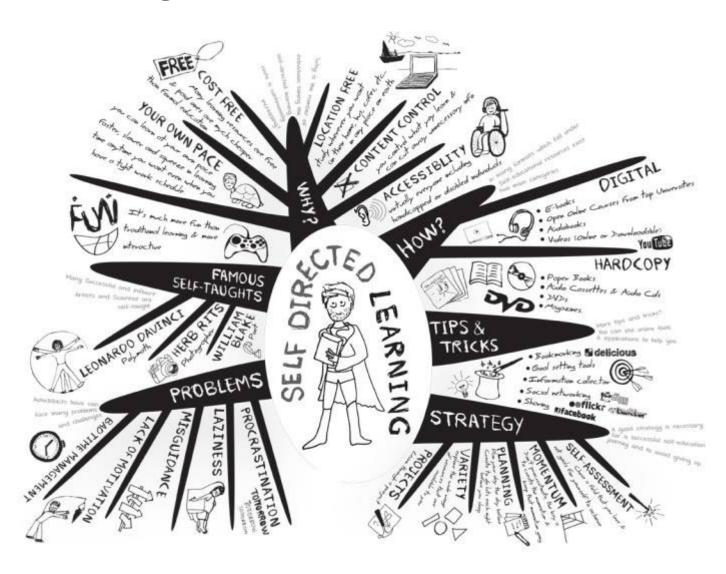


1960



2012

Self Directed Learning:



Project-based Learning:







Maker-spaces and Incubators



Libraries + Maker-spaces Merging



Career Technical Education

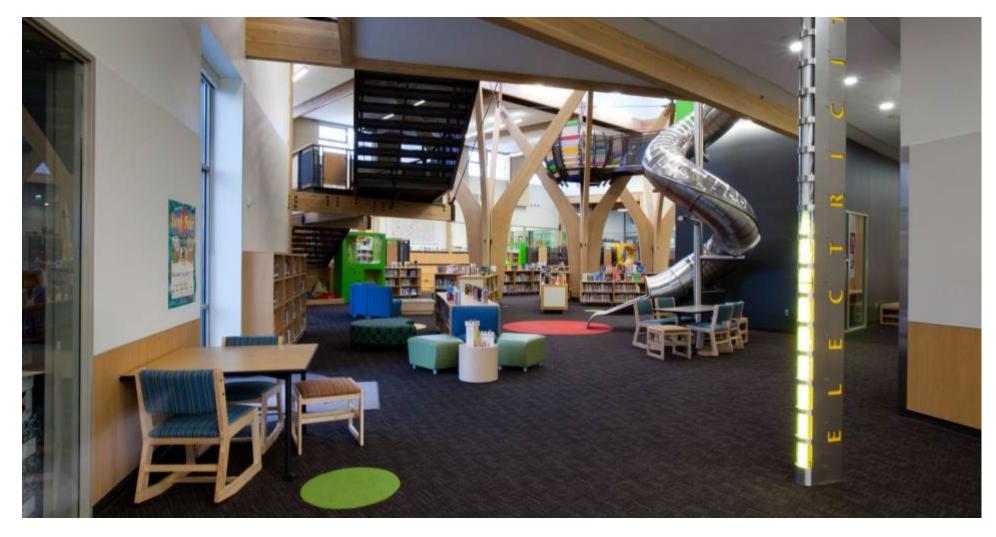








Encouraging Environmental Stewardship + Sustainable Living



Technology | BYOD | 1:1 | Tech Tablets | Open Tech



CLOSING & NEXT STEPS

Next Steps

- Benson Budget Overview
- PPS CTE Overview
- Educational Specifications Area Program Review & Adjacency Diagram Exercise