

THE DEATH OF THE TEXTBOOK: HOW STUDENT NEEDS AND SCHOOL PLANNING ARE CHANGING IN THE DIGITAL AGE.

20TH CENTURY TEACHING THE SLOW DISAPPEARANCE OF THE PAPER TEXTBOOK 21st CENTURY LEARNING
CLASSROOMS DEFINED AS WORKROOMS
INFLUENCING FACTORS WITHIN THE LEARNING ENVIRONMENT

PERKINS+WILL

20TH CENTURY TEACHING



20TH CENTURY TEACHING

What was your high school experience like?

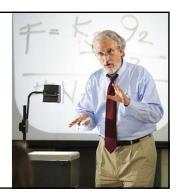
Did you have one of these?



20TH CENTURY TEACHING

What was your high school experience like?

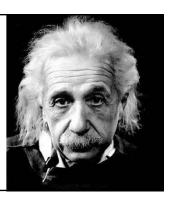
Did you have one of these?



20TH CENTURY TEACHING Fostering Change

You can't solve problems by using the same kind of thinking we used when we created them.









20TH CENTURY TEACHING

Silos of disconnected knowledge Operation in Isolation

Disconnected from real world issues Teacher Focused

Separation

Authoritarian Standardized

Basic Subjects

History based - Learn the known





20TH CENTURY TEACHING

- Survey of:
 2009 and 2010
 470,000 students
 65 countries
 Study conducted by PISA
 Poor underdeveloped nations to the most wealthy

- Top Performers:
 South Korea
 China (Hong Kong, Shanghai)
 India, Japan
 Canada, Australia
 Finland



20TH CENTURY TEACHING

From 1998 to 2008, the US has slipped from 2nd in graduation rates to 13th (OECD).

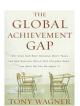
Out of 34 countries, the US ranked.....

14th in reading
17th in science
25th in math



20TH CENTURY TEACHING

- 1. Critical thinking and problem solving
- Collaboration across networks
- 3. Agility and adaptability
- 4. Initiative and entrepreneurship
- Effective oral and written communication
- 6. Accessing and analyzing information
- 7. Curiosity and imagination
- 8. Innovation





20TH CENTURY TEACHING

This is a wake up call for America!

We live in a globally competitive knowledge based economy, and our children today are at a competitive disadvantage from other countries.... and this puts our country's long term economic prosperity at risk.

Arne Duncan: US Sec of Education











THE SLOW DISAPPEARANCE OF THE TEXTBOOK

PERKINS+WIL

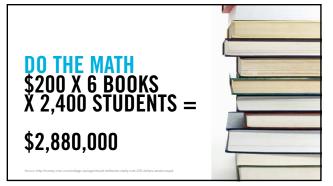
TEXTBOOKS ARE USUALLY BIG, CLUMSY AND HEAVY













Out of Date when going to publish

My favorite,
The answers were always in the back!



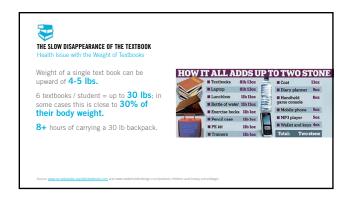


On average, textbook companies publish a new edition every **3-4** years.

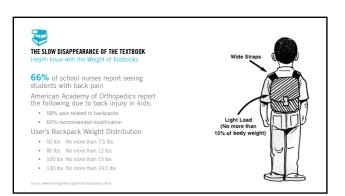
The Texas State Board of Education spends in excess of **\$600M** annually in its central purchasing of textbooks.

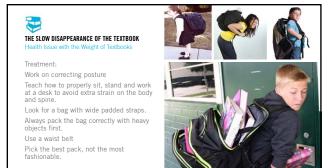
Source: www. wiki.answers.com/Q/How_much_does_a_textbook_weigh_in_poun













Size = 15" x 15" x 72" 1.69 square feet per locker 2,400 lockers = 4,056 sf At \$180/sf.....

That is

\$730,080!!!!

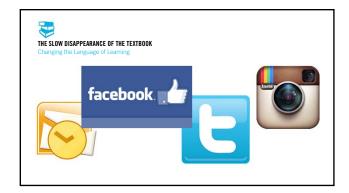




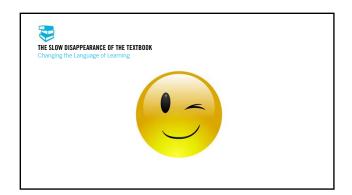
That is

1.5 Miles!!!!

















Know more about the World Think outside the box Emphasis on Creativity + Innovation Ability to think across disciplines High Tech + Connected Good People Skills + Collaborative According to GOOD Magazine:

- Good Reading Comprehension
 Effective Search and Retrieval Skills
 Ability to Distinguish Believable Input





Student Centered Small Learning Communities Collaboration Project Based Learning

Outdoor Learning Spaces Flexibility for Multiple Learning Styles Adaptable

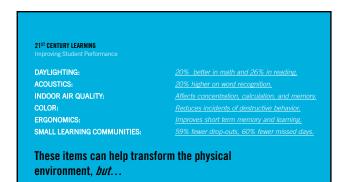
Independent Small Group Learning Safety + Security Mobile + Decentralized Technology

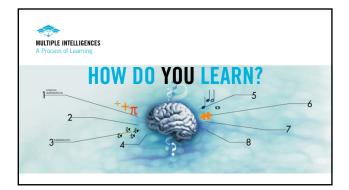


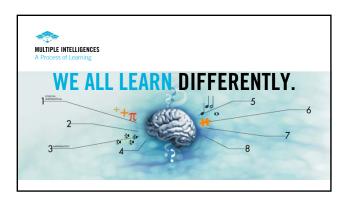
21 st	CENTU	JRY LEAR	NING
	roving		

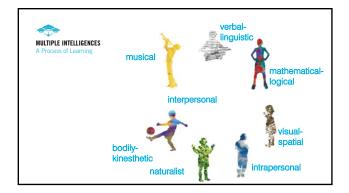
DAYLIGHTING: INDOOR AIR QUALITY: COLOR: ERGONOMICS: SMALL LEARNING COMMUNITIES: 20% better in math and 26% in reading.

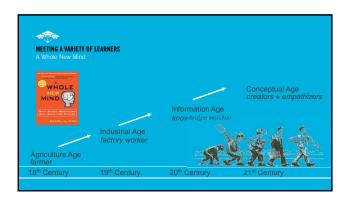
20% higher on word recognition.
Affects concentration, calculation, and memory.
Reduces incidents of destructive behavior. 59% fewer drop-outs, 60% fewer missed days.

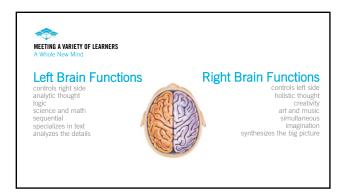


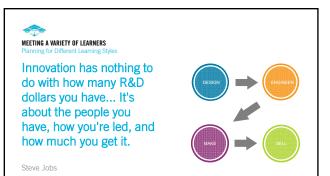


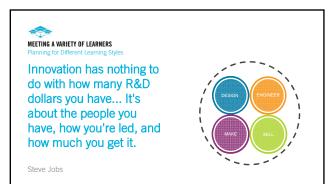


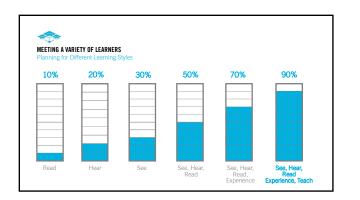


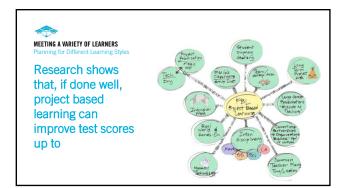






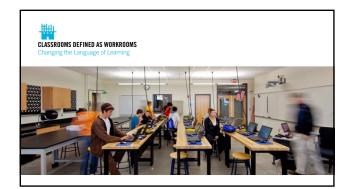


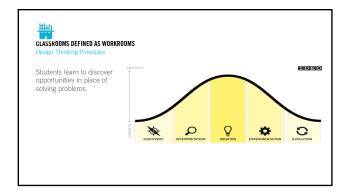


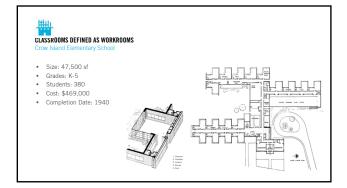


CLASSROOMS DEFINED AS WORKROOMS

PERKINS+WIL







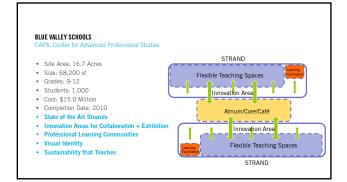




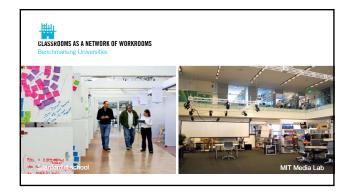








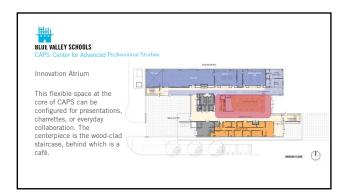








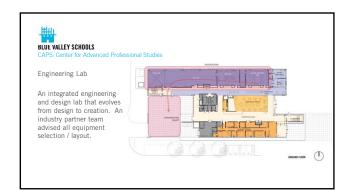


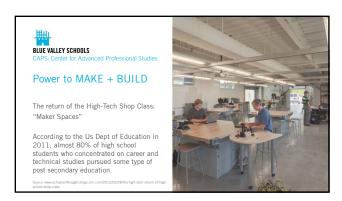














INFLUENCING
FACTORS WITHIN THE
LEARNING
ENVIRONMENT
ENVIKUNMENI

PERKINS+WIL

DIGITAL TECHNOLOGY + PERSONAL MEDIA DEVICES

IT IS WIRELESS + SMALL

PERKINS+WILL







SO... DO YOU OWN A SMARTPHONE?

SO DO YOU EMAIL?	
SO DO YOU FACEBOOK?	
SO DO YOU BLOG?	

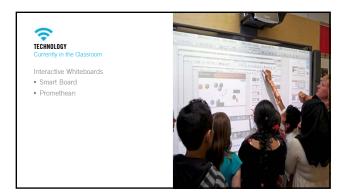
SO... DO YOU TWITTER?

OUR STUDENTS ARE DOING IT!









According to studies provided by Smart, electronic whiteboards have been found to help improve student performance, particularly in math, and save teachers time by streamlining lesson plans and increasing student engagement.



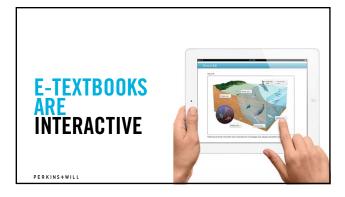
Electronic whiteboards can save work, which can't easily be done on a conventional whiteboard.

Material from class can also be sent to students who are out sick or absent.













ATTRIBUTES OF THE E-TEXTBOOK

Benefits

Current Easy to update

Interactive
Easy to share information digitally
Include note-taking and study tools

And they weigh less than 1.5 lbs!





Supportive of the 21st Century Learning Process

According to a survey by TRU and commissioned by the Verizon Foundation, more than 1 in 3 middle school students use mobile devices to do their homework.

Of the students surveyed, 66% are not allowed to use tablets in the classroom.

As well as 88% are not allowed to use a smart phone.

Source: www.thinkfinity.ora/docs/DOC-105





Suppression of the sleep hormone.

We exposed to bright light before rest, the brain thinks it is daytime. Melatonin is suppressed and the sleep cycle is interrupted.



Copyright / Perkins+Will 2013

CLASSROOM LIGHTING	
PERKINS+WILL	
About 25 percent of the U.S. population goes to school every day in nearly 140,000 schools, colleges and universities.	
No one has ever counted the number of buildings, but thousands are barely built to code.	

We know that fresh and clean air improves health, daylight boosts concentration, and comfortable temperatures increase focus.





- Direct Lighting
 Traditional classroom lighting often driven by cost of lamp maintenance vs. performance and quality of output
- Can produce glare

Indirect Lighting

- Allows for more even distribution of light
 Can select fixtures with varied indirect vs. direct output (80% indirect, 20% direct)





Controlled Lighting

- GeneralAV ModeQuiet Mode



CL	AS	SR	0	0	M
AC	Ol	JSI	ΓI(SS	•

PERKINS+WILL

Improved acoustics enable communication.

Goal: To provide classrooms that are quiet so that teachers can speak to the class without straining their voices and students can effectively communicate with each other and the teacher.



Students learning new materials need to be able to clearly understand their teachers.

Word recognition is especially important for language classes, including English as a second language.



CLASSROOM ACQUISTICS

Studies have shown that noise level is one of the most important sources of stress in teachers.

Stress might affect teachers ability to have friendly inaction with student, and be patient.



BIGGEST CULPRIT IN INSUFFICIENT ACOUSTICS IS REVERRERATION



PERKINS+WIL

REVERBERATION IS SOUND BOUNCING IN A ROOM CAUSING ECHO

PERKINS+WILL



Current clients requesting carpet in classrooms to eliminate reverberation, and squeaky chairs.

Possible Sound Absorbing Solutions:

- Acoustical ceilings
- Acoustical wall panels
- Carpet



STUDENT FURNITURE

PERKINS+WIL



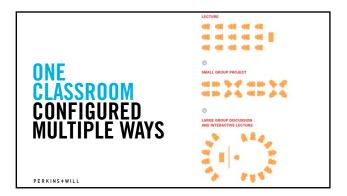
BUT WHY COULDN'T THEY BE DYNAMIC

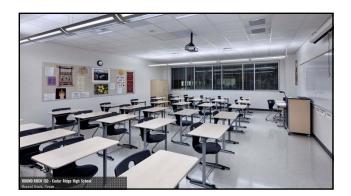


Furniture study on a high school recently found that most classrooms act as a barrier to collaborative learning rather than a tool for learning under the demands of today's teaching pedagogies.

Multiple teaching modes are necessary to support multiple learning styles, but classrooms generally do not support easy transitions from one mode to the next.





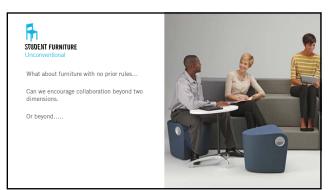














By transforming the physical environment of a learning institution, we have the ability to impact how students, teachers and communities engage in their world.



THANK YOU







