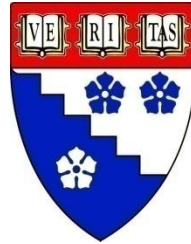


# The Global Achievement Gap



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**[www.gse.harvard.edu/clg](http://www.gse.harvard.edu/clg)**

**[www.schoolchange.org](http://www.schoolchange.org)**

**“The formulation of the problem is often more essential than the solution.” Einstein**

**What is the “crisis” in the American education really all about—what’s the “problem”?**

If it ain't broke,  
don't fix it!

*School reform is just another fad.*

*Their schools are the problem, not ours!*

**Incremental change is the only way to go**

# The New Educational Challenges: “The Rock & The Hard Place”

- **The Rock: NEW SKILLS for Work, Continuous Learning & Citizenship in a “knowledge society” for ALL STUDENTS**
  - Convergence of skills needed for careers, college, citizenship
  - Students lacking skills relegated to marginal employment & citizenship
- **The Hard Place: The “Net Generation” is differently motivated to learn**
  - Boredom is the leading cause of h.s. student dropouts and underachievement
- **Re-Framing the Problem: Reform vs. Reinvention**
  - Teaching ALL students NEW skills is a new education challenge that requires development of new accountability structures, different ways of teaching and testing, and new ways of working together and with our students.

# **The Seven Survival Skills for Careers, College, And Citizenship**

- 1. Critical Thinking and Problem-Solving**
- 2. Collaboration Across Networks and Leading by Influence**
- 3. Agility and Adaptability**
- 4. Initiative and Entrepreneurialism**
- 5. Effective Oral and Written Communication**
- 6. Accessing and Analyzing Information**
- 7. Curiosity and Imagination**

# What is The “Global Achievement Gap”?

**The Global Achievement Gap is the gap between what even our *best* schools are teaching and testing**

**Versus**

**The skills *all* students will need for careers, college, and citizenship in the 21<sup>st</sup> century**

**What gets tested is what gets taught:  
Having the wrong metric is worse than  
having none at all**

# How Do We Stack Up to the Competition?

## LITERACY

- PISA Reading Literacy: 15<sup>th</sup> out of 29 OECD countries
- PISA Problem-solving: 24<sup>th</sup> out of 29
- PISA Science Literacy: 35<sup>th</sup> out of 57
- PISA Math Literacy: 39<sup>th</sup> out of 57

## COLLEGE COMPLETION

- **1995:** U.S. College completion rate was number 1 in the world
- **2005:** We had dropped to 12<sup>th</sup> in the world
- 1 out of 2 students who starts college never completes a degree

# What Motivates The “Net” Generation?

- **Accustomed to instant gratification and “always-on” connection**
- **Use the web for 1) extending friendships, 2) interest-driven, self-directed learning, and 3) as a tool for self-expression**
- **Constantly connected, creating, and multitasking in a multimedia world—everywhere except in school**
- **Less fear and respect for authority—accustomed to learning from peers; want coaching, but only from adults who don’t “talk down” to them**
- **Want to make a difference and do interesting/worthwhile work**

# So Whose Radical Ideas Are These?

**The new college general education requirements--one half course in each of the following eight categories:**

- **Aesthetic and Interpretive Understanding**
- **Culture and Belief**
- **Empirical Reasoning**
- **Ethical Reasoning**
- **Science of Living Systems**
- **Science of the Physical Universe**
- **Societies of the World**
- **The United States in the World**

**In addition, the faculty was urged to pursue hands-on, activity-based learning and increase class discussions vs. lectures**

# Harvard College . . .

**“These courses aim not to draw students into a discipline, but to bring the disciplines into students' lives . . . in ways that link the arts and sciences with the 21st century world that students will face and the lives they will lead after college.”**

**<http://www.generaleducation.fas.harvard.edu/icb/icb.do>**

# ***From* An Information-based Learning System**

**Focus on “Timeless Learning” (academic content that has stood the test of time):**

- **Rigor is content mastery (getting more right answers)**
- **Studying existing content by disciplines**
- **Learners working alone & in competition**
- **Motivated mainly by extrinsic rewards (grades)**
- **Taught by isolated content experts through memorization/recall**
- **Assessed mainly by multiple choice, computer scored tests**

# **To A Transformation-based Learning System**

## **Focus on using content to master the *competencies* of “Just-in-Time Learning”**

- **Rigor is figuring out the right question/problem to be solved**
- **Exploring questions and new problems within & across disciplines**
- **Learners working in teams**
- **Motivated more by intrinsic rewards (pride in mastery, contributing)**
- **Taught by teamed coaches through inquiry, exploration/discovery—hands on**
- **Assessed through auditing strategies, digital portfolios, & exhibitions of mastery (merit badges)**

# Redefining Rigor: 5 “Habits of Mind”

## Learning to Ask The Right Questions

- ***Weighing Evidence***
  - How do we know what’s true and false? What is the evidence, and is it credible?
- ***Awareness of Varying Viewpoints***
  - What viewpoint are we hearing? Who is the author, and what are his or her intentions? How might it look to someone with a different history?
- ***Seeing Connections/Cause & Effect***
  - Is there a pattern? How are things connected? Where have we seen this before?
- ***Speculating on Possibilities/Conjecture***
  - What if? Supposing that? Can we imagine alternatives?
- ***Assessing Value—Both Socially and Personally***
  - What difference does it make? Who cares? So what?

From [www.missionhillsschool.org](http://www.missionhillsschool.org)

# **Redefining Organizational Excellence:**

## **The Three Cornerstones of School “Re-Invention”**

### **1. Holding Ourselves Accountable for What Matters Most**

- “AYP” versus Attainment—track % of students persisting with post-secondary (National Student Clearinghouse)
- Use The College and Work Readiness Assessment to assess analytic reasoning, critical thinking, problem-solving, and writing
- video focus groups with recent grads, college profs & employers

### **2. Doing the New Work: teaching/assessing the skills that matter most**

- Start with the 4 C’s: Critical Thinking, Communication, Creativity and Collaboration—in every class and at all grade levels
- Develop performance assessments & digital portfolios K-12
- Work internship & service learning as requirements for graduation

### **3. Doing the New Work *in New Ways***

- Every teacher on teams for collaborative inquiry
- Video teaching & supervision (lesson study vs. evaluation)
- Every student has an adult coach for his/her success

# Some Possible Next Steps

- **Gather Baseline Data**
  - College & Work Readiness Assessment
  - Cohort graduation rate and post secondary data
  - Video focus groups with recent grads
- **Consider a strategic planning process to identify critical outcomes for all students**
  - See Virginia Beach & Catalina Foothills models
- **Create Voluntary Teams of Teachers to:**
  - Develop & video lessons for critical thinking/communication skills
  - Pilot digital portfolios and 5th, 8th, & 12<sup>th</sup> exhibitions of mastery
- **Develop Administrators' Skills for Giving Helpful Feedback**
  - Learning walks in teams, with time to debrief--instructional rounds
  - Looking at videos of lessons
  - video supervision conferences with volunteers

# Policy Implications for *REAL* Innovation

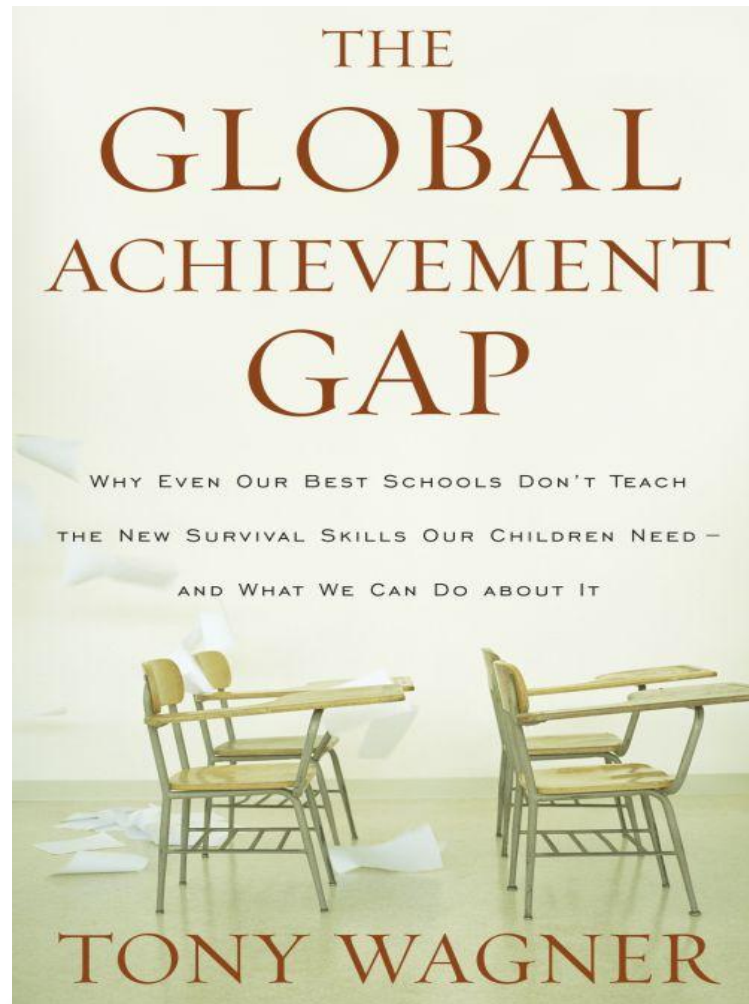
- **Accountability 2.0 Systems:** Tracking real grad rate & attainment--% of students who complete postsecondary; assessing the “just-in-time” learning skills that matter most, using new tests like the College & Work Readiness Assessment , PISA tests, & student digital portfolios to assess growth over time
- **School-based R & D:** creating lab schools—pictures of what 21<sup>st</sup> century schooling can be—like New Tech High and High Tech High; videotape exemplary lessons and teacher team meetings
- **Performance standards to license and re-certify educators:** teacher digital portfolios with videos of instruction, samples of student work, assignments, interviews with students; administrator portfolios with agendas, improvement plans, videos of meetings & supervision of teachers



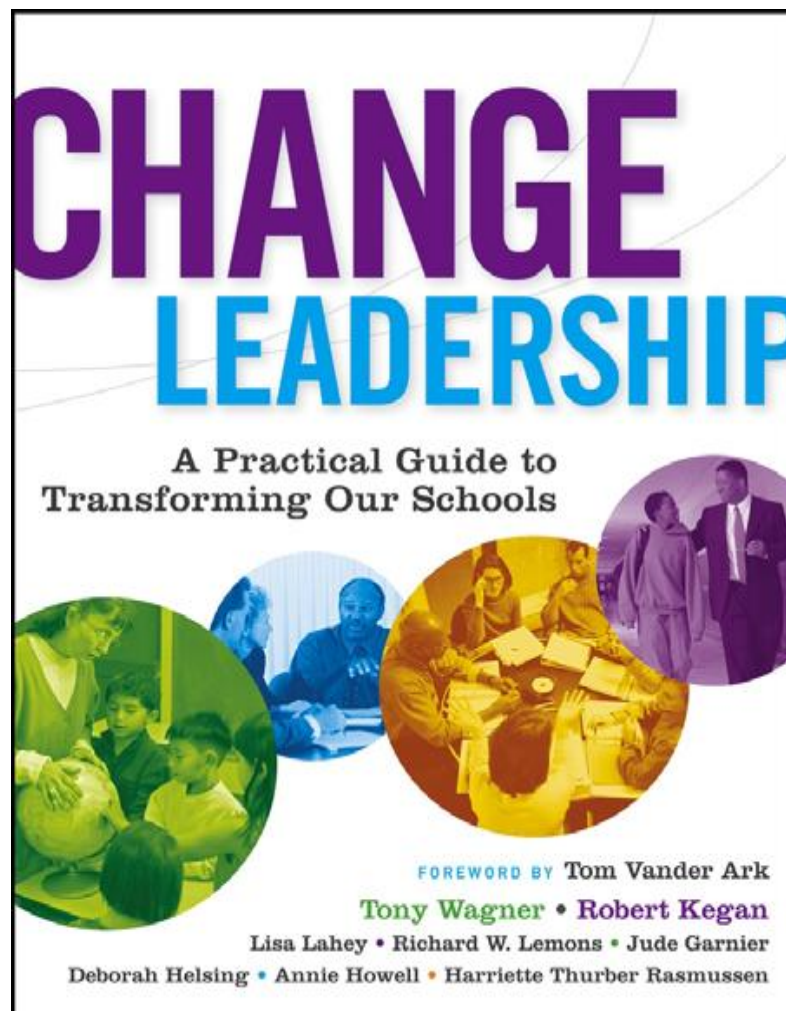
**For more information:**

**[www.schoolchange.org](http://www.schoolchange.org)**

# For Still More Information . . .



# And More Still . . .



# Resources

- **The College and Work Readiness Assessment**  
[http://www.cae.org/content/pro\\_collegework.htm](http://www.cae.org/content/pro_collegework.htm)
- **“Problem-Solving For Tomorrow’s World,” PISA 2003**  
<http://www.oecd.org/dataoecd/25/12/34009000.pdf>
- **Other PISA tests:** [www.pisa.oecd.org](http://www.pisa.oecd.org)
- **ETS “ISkills Test”** [www.ets.org/iskills](http://www.ets.org/iskills)
- **“Towards a More Comprehensive Conception of College Readiness” by David Conley**  
<http://www.gatesfoundation.org/nr/downloads/ed/researchevaluation/CollegeReadinessPaper.pdf>
- ***Instructional Rounds in Education: A Network Approach to Improving Teaching and Learning* (City, Elmore, Fiarman, Teitel)**
- **National Student Clearinghouse**  
<http://studentclearinghouse.org/highschools/default.htm>

# Resources

- High Tech High website (videos, curriculum, digital portfolios)  
<http://www.hightechhigh.org/>
- Coalition of Essential Schools website (videos, workshops, other resources) <http://www.essentialschools.org/>
  - Francis Parker Essential School (7-12) [www.parker.org](http://www.parker.org)
  - Mission Hill School (k-8) [www.missionhillschool.org](http://www.missionhillschool.org)
- Catalina Foothills 21<sup>st</sup> century skills overview  
[http://www.cfsd16.org/public/\\_century/centMain.aspx](http://www.cfsd16.org/public/_century/centMain.aspx)
- Virginia Beach Strategic Plan: <http://www.vbschools.com/compass>
- “Two Million Minutes,” a documentary film comparing 6 high school students in the US, China, and India  
<http://www.2mminutes.com/index.html>
- Partnership for 21<sup>st</sup> Century Skills <http://21stcenturyskills.org/>
- NY Performance Standards Consortium (28 high schools using common assessments) <http://performanceassessment.org/index.html>
- Free digital portfolio software:  
<http://grover.concordia.ca/eppearl/en/eppearl.php>

# Resources - Videos

- Video 1—10<sup>th</sup> Grade English Class:  
<http://www.gse.harvard.edu/clg/books/1.html#video>
- Video 2—”Looking for An Argument.” See also “Teaching American History” for an excellent example of an “inquiry” approach to teaching subject content  
<http://www.teacherscollegepress.com/teachertoteacher.html>
- Quest High School Senior Project Video—excellent example of performance assessment <http://store.essentialstore.org/ces-essentialvisions-disc-2-student-achievemen.html>
- Supporting Inquiry Teaching Coaching Video can be ordered from Institute for Student Achievement: (516) 812-6789 or email [drubino@isa-ed.org](mailto:drubino@isa-ed.org)
- *Highline School District high school student focus group video* <http://www.hsd401.org/parentinfo/hsredesign/studentvoices.htm>
- A video on how to do focus groups: “Creating Community Consensus: Dialogues for Learning & Engagement”  
<http://www.seattleschools.org/area/ibc/tw.xml>