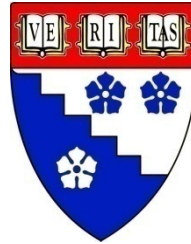


The Global Achievement Gap



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“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 21st 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: 15th out of 29 OECD countries
- PISA Problem-solving: 24th out of 29
- PISA Science Literacy: 35th out of 57
- PISA Math Literacy: 39th out of 57

COLLEGE COMPLETION

- **1995:** U.S. College completion rate was number 1 in the world
- **2005:** We had dropped to 12th 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

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, & 12th 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

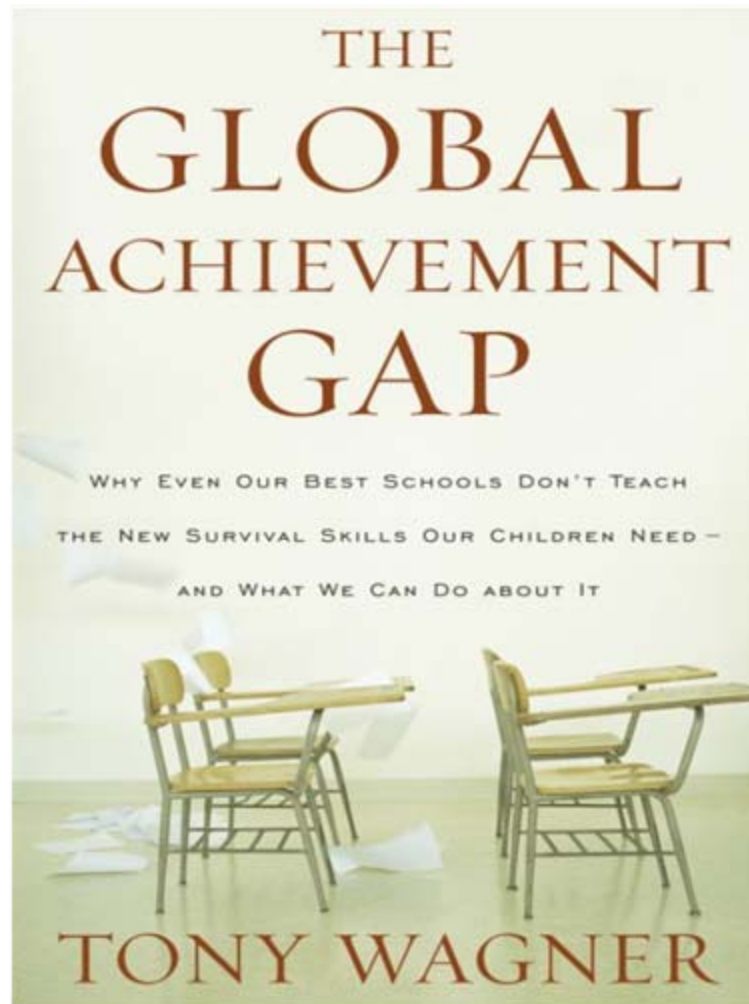
- **Accountability 2.0 Systems:** Tracking real grad rate & attainment--% of students who complete postsecondary; assessing the “just-in-time” learning skills that matter most, using new tests like the College & Work Readiness Assessment , PISA tests, & student digital portfolios to assess growth over time
- **School-based R & D:** creating lab schools—pictures of what 21st 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



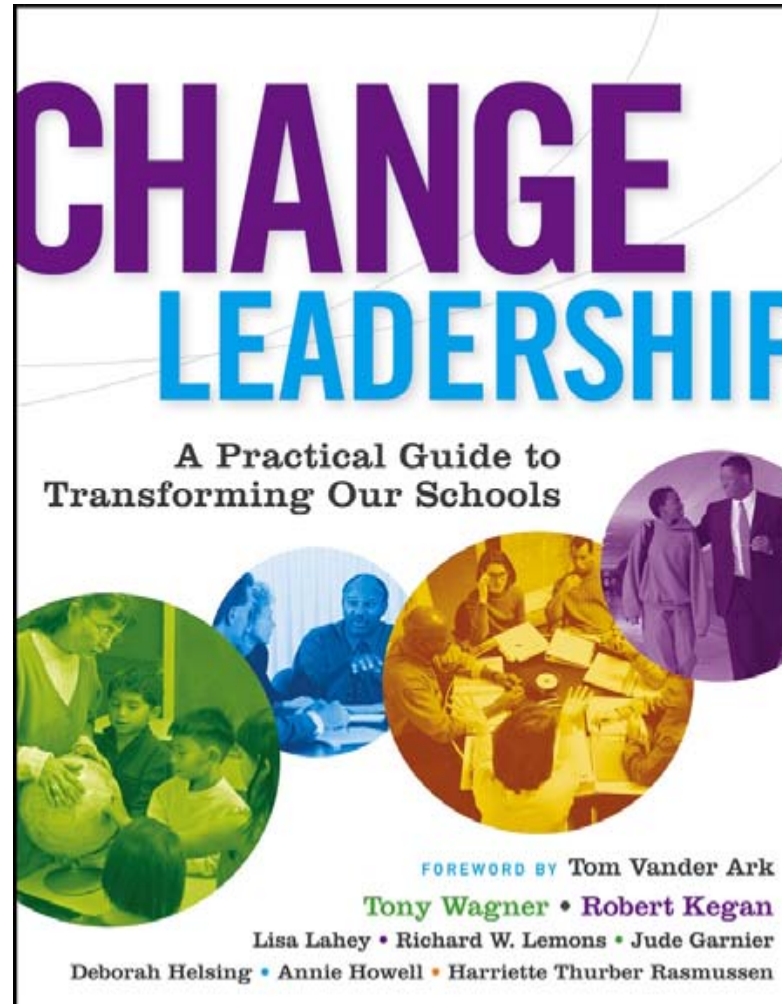
For more information:

www.schoolchange.org

For Still More Information . . .



And More Still . . .



Resources

- The College and Work Readiness Assessment
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
- ETS “ISkills Test” 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
 - Mission Hill School (k-8) www.missionhillschool.org
- Catalina Foothills 21st century skills overview
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 21st 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/epearl/en/epearl.php>

Resources - Videos

- Video 1—10th 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
- *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>