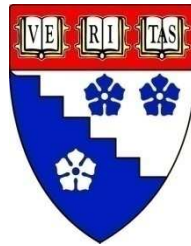


Overcoming The Global Achievement Gap



**Tony Wagner, Co-Director
Change Leadership Group**

Harvard University, Graduate School of Education

tony_wagner@harvard.edu

www.gse.harvard.edu/clg

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:

- **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 “Net Generation” is differently motivated to learn**
 - Boredom is the leading cause of h.s. student dropouts
- **Re-Framing the Problem: Reform vs. Reinvention**
 - Teaching ALL students NEW skills is an 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

Motivating The “Net” Generation: Overcoming The Global *Learning* Gap

- **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 What Does It Mean To Be “College-Ready?”

The new Harvard 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

Rigor in The Classroom: 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.missionhillschool.org

Meeting The New Education Challenges: From Education 2.0 to Education 3.0

- **From narrow 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 mastering the *competencies* of “Just-in-Time Learning”**
 - Rigor is figuring out the right question/problem to be solved
 - Exploring new problems within & across disciplines
 - Learners working in teams
 - Motivated more by intrinsic rewards (pride in mastery, contributing)
 - Taught by teamed coaches through exploration/discovery
 - Assessed through auditing strategies, digital portfolios, & exhibitions of mastery (merit badges)

World-Class: Lessons Learned from Finland's Education Reforms

- **Teacher Quality:** only 8 universities certified to prepare teachers; all must earn Masters & demonstrate excellent teaching. *Teachers have high professional status and think of themselves as scientists—but receive only average pay*
- **National Curriculum Standards;** local responsibility for implementation. Sample testing for auditing purposes only.
- **High Quality Academic & Vocational Programs** are offered to every student (based on choice & gpa, not testing)
- **Focus on Interest-based Learning at All Levels:** projects that combined concepts with hands-on; 1/3 of h.s. students' classes are electives; only required test in Finnish, others are elective
- **A System Based on Trust** at every level, not Compliance

Policy Implications for *REAL* Innovation

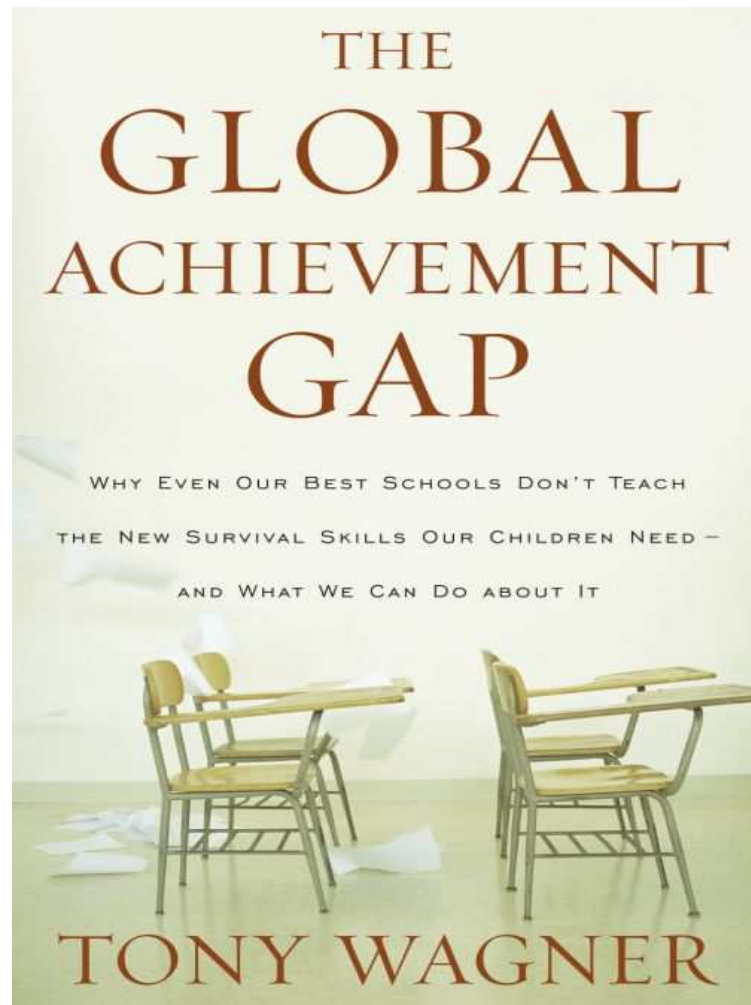
- **Accountability 2.0 Systems:** Tracking real grad rate & attainment--% of students who complete postsecondary; assessing the “just-in-time” learning skills that matter most, using new tests like the College & Work Readiness Assessment , PISA tests, & student digital portfolios to assess growth over time
- **School-based R & D:** creating visible model 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. **Why not A National Teacher Academy???**



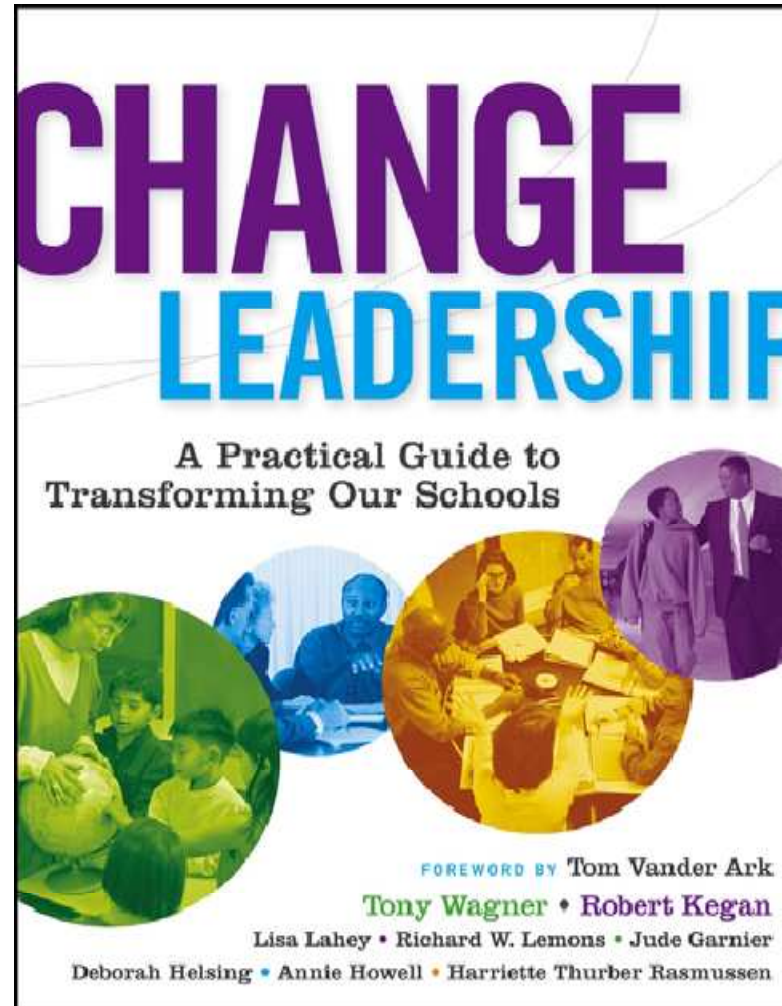
For more information:

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>
- BERC Group videos—varying quality, good for discussion
<http://www.bercgroup.com/products.php>
- *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>