Overcoming The Global Achievement Gap:
Learning, Leading, and Teaching in the 21st Century

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"The formulation of the problem is often more essential than the solution." Einstein

What is the "crisis" in 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 low achievement & student dropouts**
- **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?

2009 PROGRAM FOR STUDENT ASSESSMENT (PISA) TEST:

- **Reading: 15th out of 65 countries**
- **Science: 23rd out of 65**
- **Math: 32nd out of 65**

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**

One College's Attempt to Redefine Rigor—guess who?

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.missionhillschool.org

Redefining District Organizational Excellence: Accountability

1. Hold Ourselves Accountable for What Matters Most (AYP versus Attainment)

- **Track cohort graduation rate & how well students do once they are in college (National Student Clearing House (www.studentclearinghouse.org)**
- **Use The College and Work Readiness Assessment to assess analytic reasoning, critical thinking, problem-solving, and writing (www.cae.org)**
- **Videotape focus groups with employers, college teachers & recent grads & survey students (High School Survey of Student Engagement) http://ceep.indiana.edu/hssse/index.htm**

Redefining District Organizational Excellence:
Academics

2. Doing the New Work: teaching & assessing the skills that matter most

- **Develop strategies for teaching & assessing the 3 C's: Critical & Creative Thinking, Communication, and Collaboration—in every class and at all grade levels**
- **Pilot interdisciplinary courses around essential questions and capstone projects for 5th, 8th, and 12th projects. Consider starting a Lab School.**
- **Require all students to have digital portfolios, work internships, and service learning projects**

Redefining District Organizational Excellence: Collaboration

3. Doing the New Work *in New Ways*

"Isolation is the enemy of improvement"

- **Every student has an adult advocate**
- **Every teacher on teams for collaborative inquiry—looking at student & teacher work**
- **Transparency: Videotape teaching, supervision, and meetings (lesson study vs. evaluation!)**
- **Digital portfolios for teachers & leaders**

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**

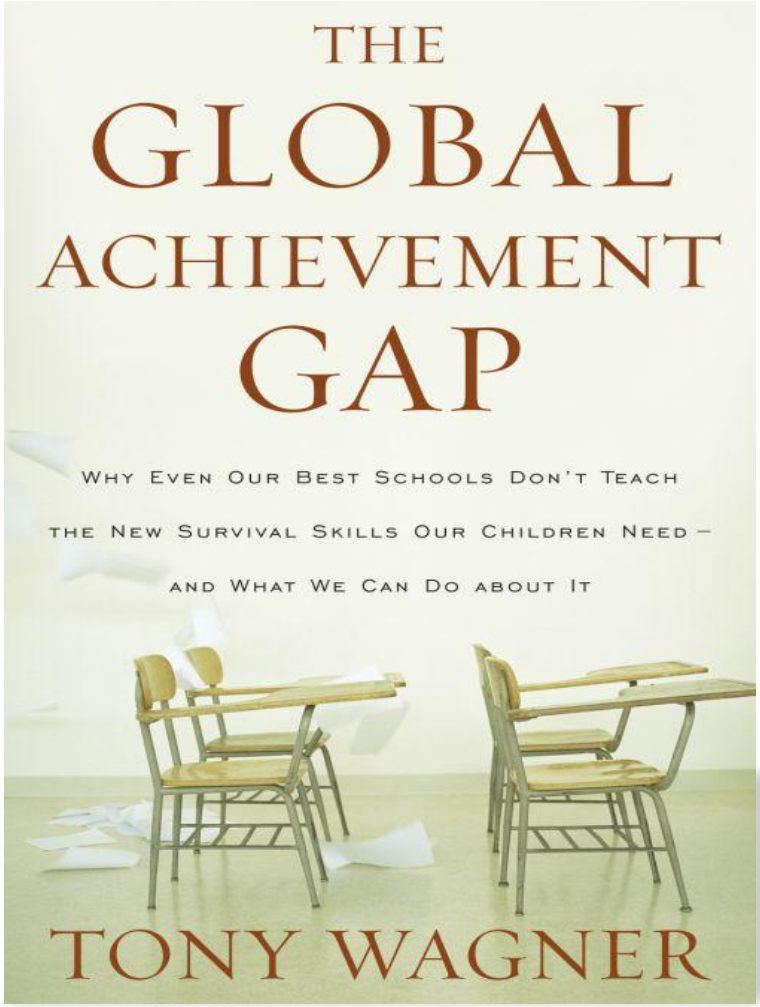
- **School-based R & D: creating lab schools—pictures of what 21st century schooling can be—like New Tech High and High Tech High; videotape exemplary lessons and teacher team meetings**

- **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**

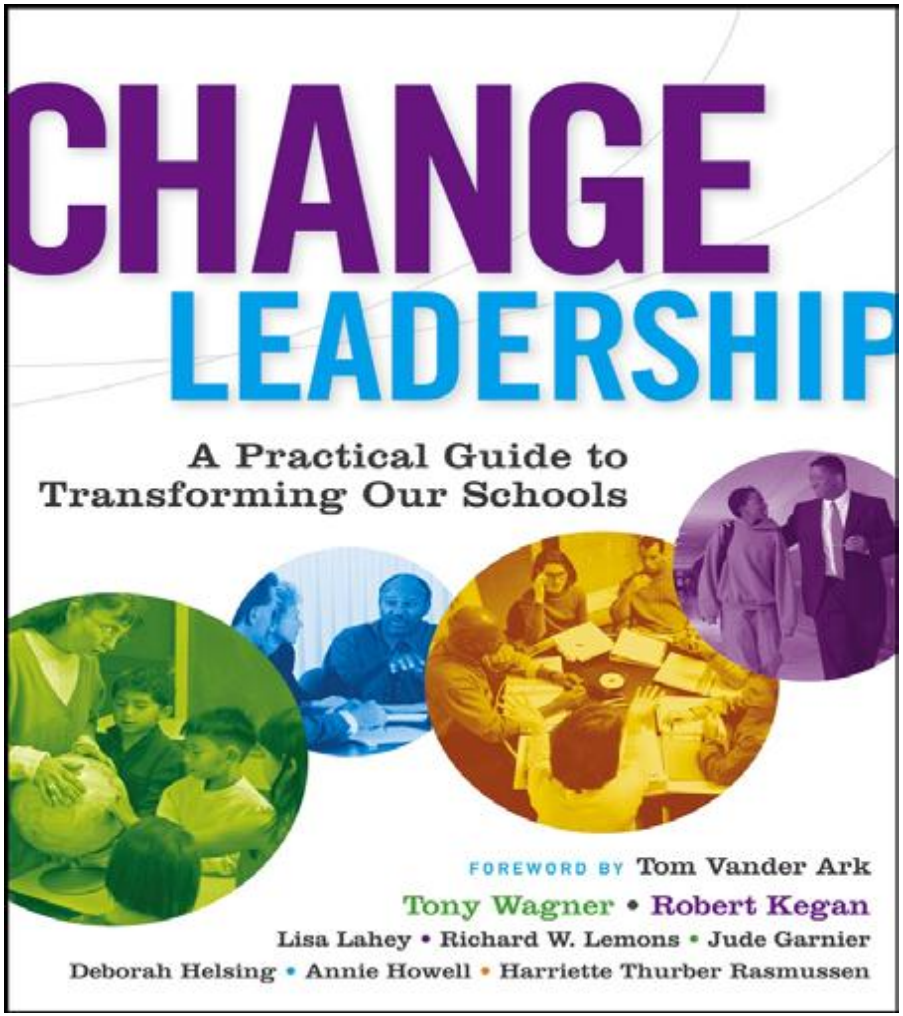
For more information:

www.changeleadershipgroup.org

For Still More Information . . .



And More Still . . .



Resources

- **The College and Work Readiness Assessment**
  http://www.cae.org/content/pro_collegework.htm
- **"Rethinking College Readiness" by David Conley**
  http://www.epiconline.org/publications/dr._david_conley
- **National Student Clearinghouse**
  http://studentclearinghouse.org/highschools/default.htm
- **High School Survey of Student Engagement**
  http://ceep.indiana.edu/hssse/index.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**
- ***Instructional Rounds in Education: A Network Approach to Improving Teaching and Learning* (City, Elmore, Fiarman, Teitel)**

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 coming assessments) http://performanceassessment.org/index.html
- Free digital portfolio software: http://grover.concordia.ca/epearl/en/epearl.php