



The Global Achievement Gap

Why Even Our Best Schools Don't Teach the New Survival Skills Our Children Need—and What We Can Do About It

INTRODUCTION

“The formulation of the problem is often more important than the solution”

—Einstein

Did you know?

- Only about a third of all high students graduate ready for college in the U.S. today, and the rates are much lower for poor and minority students. More than a third of all students who enter college must take remedial courses.^[ii] While no hard data is readily available, it is estimated that 1 out of 2 students who start college never complete any kind of postsecondary degree.
- Sixty-five percent of college professors report that what is taught in high school does not prepare students for college. One major reason is that the tests students must take in high school for state accountability purposes usually measure ninth- or tenth-grade level knowledge and skills. Being mostly multiple-choice assessments, they rarely ask students to explain their reasoning or to apply knowledge to new situations—skills that are critical for success in college—and so neither teachers nor students receive useful feedback about college readiness.^[iii]
- In order to earn a decent wage in today’s economy, most students will need at least some postsecondary education. An estimated 85 percent of current jobs and almost 90 percent of the fastest-growing and best-paying jobs now require postsecondary education. Even most of today’s manufacturing jobs now require postsecondary training and skills.^[iv] According to the authors of “America’s Perfect Storm,” “Over the next 25 years or so . . . nearly half of the projected job growth (in jobs) will be concentrated in occupations associated with higher education and skill levels. This means that tens of millions more of our students and adults will be less able to qualify for higher-paying jobs. Instead, they will be competing not only with each other and millions of newly arrived immigrants but also with equally (or better) skilled workers in lower-wage economies around the world.”^[v]
- Students are graduating from both high school and college unprepared for the world of work. Less than a quarter of the more than 400 employers recently surveyed for a major study of work readiness report that new employees with four-year college degrees have “excellent” basic knowledge and applied skills. Among those who employ young people right out of high school, nearly 50 percent said that their overall preparation was “deficient.”^[vii]

How does one make sense of this information? The conventional view of the problem is simply that our schools are “failing.” We’ve heard this line from Republicans and Democrats alike. We’ve heard it in the media and from the academics and the policy pundits. We’ve heard it so often it has become the accepted wisdom of the day. But what I see in high school classrooms all over the country suggests a different conclusion. What I see in most high schools is, in fact, not very different than what I saw thirty-five years ago when I began my career as a teacher-or even what I experienced as a high school student, myself. No better, and no worse. Just more testing-and more teaching to the tests.

My view is that these numbers, taken together, point to a new and little-understood challenge for American education: in today's highly competitive global knowledge economy, all students need new skills for college, careers, and citizenship. To fail to give all students these new skills leaves today's youth—and our country—at an alarming competitive disadvantage. Schools haven't changed; the world has. And so our schools, then, are not failing. They are obsolete—even the ones that score the best on standardized tests—which is a very different problem requiring an altogether different solution.

What are these new skills, and why they have become so important? Why do our schools—even the best ones—not teach and test them? How do we need to differently prepare and support educators to meet these new challenges, and what are the best ways to hold our schools accountable? How do we motivate today's students to want to excel in this new world, and what do good schools look like that are meeting these challenges and getting dramatically better results? What we can and must we do as citizens about this growing global achievement gap? These are some of the questions I address in this book.

A New Context for Schooling

A little over fifty years ago, Rudolf Flesch wrote a slim volume called, *Why Johnny Can't Read*. More than any other book, this one started the “reading wars”—vehement and often ideologically driven debates about the best way to teach students how to read which continue to this day—but the nature of the disagreements matters less than the topic. For much of the 20th century the basic skills of reading, computation, and rudimentary writing were the focus of our attention in schools and at home. For most students, a “rigorous” curriculum meant having to memorize more vocabulary words and do more math problems at night. There were disputes among academics and parents alike over the ways in which various skills were best taught, but there was no disagreement about their importance. Thomas Jefferson first declared literacy to be the key to citizenship. And, increasingly in the 20th century, the “Three R's” became essential in the workplace, as well.

However, in the 21st century, mastery of the basic skills of reading, writing, and math is no longer enough. Increasingly, almost any job that pays more than minimum wage today—both blue and white collar—requires employees who know how to solve a range of intellectual and technical problems, as we will learn in Chapter 1. In addition, we face an exponential increase of readily available information, new technologies that are constantly changing, and more complex societal challenges such as global warming. Thus, work, learning, and citizenship in the 21st century demand that we all know how to think—to reason, analyze, weigh evidence, problem solve. These are no longer skills that only the elites in a society must master; they are essential survival skills for all of us.

What I have seen in some of our best public schools for the past decade is that while Johnny and Juan and Leticia are learning how to read—at least at a basic level—they are not learning how to think or care about what they read; nor are they learning to clearly communicate ideas orally and in writing. They memorize names and dates in history, but they cannot explain the larger significance of historical events. And they may be learning how to add, subtract, and multiply, but they have no understanding of how to think about numbers. Not knowing how to understand statistics or gauge probability, many students cannot make sense of the graphs and charts they'll see every day in the newspaper. They are required to memorize (and usually quickly forget) a wide range of scientific facts, but very few know how to apply the scientific method—how to formulate a hypothesis, test it,

and analyze the results—a way of thinking that is at the very heart of many kinds of analysis and research. Finally, I have observed that the longer our children are in school, the less curious they become. Effective communication, curiosity, and critical thinking skills, as we will see, are much more than just the traditional desirable outcomes of a liberal arts education. They are essential competencies and habits of mind for life in the 21st century.

The simplest explanation for the low level of intellectual work and general lack of curiosity found in classrooms—even in our best high schools—is that our schools were never designed to teach all students how to think. Since our system of public education came into being at the turn of the last century, the assumption has been that only those in the college preparatory classes were going to have to learn how to reason, problem-solve, and so on, and historically this was only a small percentage of students. Even students in these classes often learned such skills in school more by accident than design. For the most part, teachers haven't been trained to teach students how to think. The textbooks and tests we have used in the past were not designed to teach and assess the ability to reason or analyze—and they remain substantially the same today.

Throughout history and until very recently, most people worked with their hands—not with their heads—and so they didn't need these analytical skills in their daily life. Many generations of the most successful students learned how to think more often from the kinds of conversations they had with parents at the dinner table or family trips they took than in school. They came to school smart and motivated and left the same, and whatever “value added” some teachers may have provided often was and continues to be a random act of excellence—at least in public schools. Private schools were established to educate the elite and so have always demanded more of students, but these schools educate less than 5 percent of the high school student population.

If you doubt my observation about public school classrooms, then those of you who attended these schools should simply ask yourself: how many of your high school teachers demanded that you really think in your oral and written work, versus merely memorize and regurgitate? How often were you required to write an essay where you developed your own well-reasoned interpretation of a piece of literature or the significance of an event in history? How frequently did you have to develop and test a hypothesis for a science class or explain your thinking about how you solved a complex math problem? How often were you asked by a teacher, “So what do you think about . . .”? I don't mean just once in awhile—I mean every day. Even students in many private schools aren't asked to do these things as often as I think they should.

Many of you who are reading this book may have been in a college or honors track in your school and so could not see the kind of education the majority of your peers were getting in the other classes. Students in the lower academic tracks—a high percentage of whom were poor and minority students—rarely had intellectual challenges of any kind. And this remains true to this day. Thus, boredom was and continues to be a leading cause of our high school dropout rate—a problem we'll explore in depth later on.

Teaching all students to think and to be curious is much more than a technical problem for which educators, alone, are accountable. And more professional development for teachers and better textbooks and tests are all necessary, but insufficient, as solutions. The problem goes much

deeper—to the very way we conceive of the purpose and experience of schooling and what we expect our high school graduates to know and to be able to do. As adults, we had a set of experiences in school that define for us what learning is supposed to look like, and in most cases, our past experience still shapes how we think about school. And these preconceptions often prevent us from clearly understanding how very different the experience of schooling must be for our children. In the coming pages, I will invite you to question your assumptions about what all students should know—what it means to be an educated adult in the 21st century—as well as how we should assess this knowledge.

This is not just a philosophical question. It is a question that we must answer for our—and our children’s—economic survival. We have learned from the writing of Thomas Friedman, Daniel Pink, and many others that our children must now compete for jobs with increasingly well-educated young people from around the world. Technology has enabled a growing number of routine jobs—both blue and white collar—to be either “off-shored” or automated. These changes compel us to re-think what kind of education all of our young people will need today to get—and to keep—a good job.

Nor is this the only factor that we must consider as we re-think education goals for the 21st century. In order to better understand how all of our schools must adapt to new realities, we need to explore three fundamental transformations that have taken place in a very short period of time:

- The rapid evolution of the new global “knowledge economy” and the ways in which the world of work—all work—is changing;
- The sudden and dramatic shift from a world characterized by a limited amount and availability of information to world of information flux and glut;
- The profound impact of media and technology on how young people learn, relate to the world, and to each other.

Separately, each of these changes represents enormous challenges to our education system. Taken together, they compel a fundamental reconsideration of all of our assumptions about what children need to learn and how learning takes place for today’s young people. I will explore these three forces of change and their implications for teaching, testing, schooling, training educators, and motivating today’s students in the following chapters.

In the first chapter of the book, we’ll look at how the world of work is changing and how these and other changes have created an imperative for individuals to master the Seven Survival Skills—the skills that matter most for work, learning, and citizenship in today’s global knowledge economy. Then, in Chapter Two, we’ll contrast this New World with what I call the Old World of School—a world that has remained virtually unchanged for more than a half century. We’ll visit classes in some of our most highly regarded public schools to explore to what extent these new survival skills are being taught. In Chapter Three, we will learn what the standardized, multiple-choice tests that students must take with increasing frequency are really like. We’ll explore why and how these tests became so prevalent and their influence on education today; we’ll also look at some new assessments that have the potential to hold schools accountable for the skills that matter most.

How educators must be differently trained and supported in their work is the subject of Chapter Four. Chapter Five explores the ways in which the “net generation” has been shaped by the very different world in which they’ve grown up, as well as the challenge of motivating today’s students and

tomorrow's workers. I will take you on a tour of three remarkable high schools that show how the Seven Survival Skills can be taught and assessed and that point the way towards a new vision for education in Chapter 6. Finally, in the Conclusion, we will consider some questions—questions for me and questions for you—and what you can do to create a very different dialogue about teaching and learning and testing in the 21st century.

In *The Global Achievement Gap*, I begin by understanding why today's students must be taught how to think—all students, not just those labeled as “gifted and talented”—and then I explore some of the essential questions that we must answer if we are to take this goal seriously. What would have to change in order to educate our nation's students for both analytic and creative thinking? What must teachers do differently to stimulate students' imaginations? What kinds of tests would we give that might show whether we are making progress towards these ambitious goals? We don't know the answers to all of the questions yet, but, as Einstein said, we must first “formulate the problem.” The “problem” is, simply, that the future of our economy, the strength of our democracy, and perhaps even the health of the planet's ecosystems depend on educating future generations in ways very different from how many of us were schooled. In this book, we embark on a journey together, not only to understand this global achievement gap, but also to discover new ways of thinking about education and best practices in schools that are preparing all students for learning, work, and citizenship in the 21st century.