



Summit School Inspiring Learning Series

*Academic Rigor in the 21<sup>st</sup> Century: Seven Skills for Learning and Achievement*

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Tony Wagner's Seven Survival Skills for College, Career and Citizenship – Excerpted from *The Global Achievement Gap*

### **The Schooling Students Need**

One of my first conversations was with Clay Parker, president of the Chemical Management Division of BOC Edwards—a company that, among other things, makes machines and supplies chemicals for the manufacture of microelectronics devices. He's an engineer by training and the head of a technical business, so when I asked him about the skills he looks for when he hires young people, I was taken aback by his answer.

“First and foremost, I look for someone who asks good questions,” Parker responded.

“We can teach them the technical stuff, but we can't teach them how to ask good questions—how to think.”

“What other skills are you looking for?” I asked, expecting that he'd jump quickly to content expertise.

“I want people who can engage in good discussion—who can look me in the eye and have a give and take. All of our work is done in teams. You have to know how to work well with others. But you also have to know how to engage customers—to find out what their needs are. If you can't engage others, then you won't learn what you need to know.”

I initially doubted whether Parker's views were representative of business leaders in general. But after interviewing leaders in settings from Apple to Unilever to the U.S. Army and reviewing the research on workplace skills, I came to understand that the world of work has changed profoundly.

Today's students need to master seven survival skills to thrive in the new world of work. And these skills are the same ones that will enable students to become productive citizens who contribute to solving some of the most pressing issues we face in the 21st century.

### **1. Critical Thinking and Problem Solving**

To compete in the new global economy, companies need their workers to think about how to continuously improve their products, processes, or services. Over and over, executives told me that the heart of critical thinking and problem solving is the ability to

ask the right questions. As one senior executive from Dell said, “Yesterday’s answers won’t solve today’s problems.”

Ellen Kumata, managing partner at Cambria Associates, explained the extraordinary pressures on leaders today. “The challenge is this: How do you do things that haven’t been done before, where you have to rethink or think anew? It’s not incremental improvement any more. The markets are changing too fast.”

## **2. Collaboration Across Networks and Leadership by Influence**

Teamwork is no longer just about working with others in your building. Christie Pedra, CEO of Siemens, explained, “Technology has allowed for virtual teams. We have teams working on major infrastructure projects that are all over the U.S. On other projects, you’re working with people all around the world on solving a software problem. Every week they’re on a variety of conference calls; they’re doing Web casts; they’re doing net meetings.”

Mike Summers, vice president for Global Talent Management at Dell, said that his greatest concern was young people’s lack of leadership skills. “Kids just out of school have an amazing lack of preparedness in general leadership skills and collaborative skills,” he explained. “They lack the ability to influence.”

## **3. Agility and Adaptability**

Clay Parker explained that anyone who works at BOC Edwards today “has to think, be flexible, change, and use a variety of tools to solve new problems. We change what we do all the time. I can guarantee the job I hire someone to do will change or may not exist in the future, so this is why adaptability and learning skills are more important than technical skills.”

## **4. Initiative and Entrepreneurialism**

Mark Chandler, senior vice president and general counsel at Cisco, was one of the strongest proponents of initiative: “I say to my employees, if you try five things and get all five of them right, you may be failing. If you try 10 things, and get eight of them right, you’re a hero. You’ll never be blamed for failing to reach a stretch goal, but you will be blamed for not trying. One of the problems of a large company is risk aversion. Our challenge is how to create an entrepreneurial culture in a larger organization.”

## **5. Effective Oral and Written Communication**

Mike Summers of Dell said, “We are routinely surprised at the difficulty some young people have in communicating: verbal skills, written skills, presentation skills. They have difficulty being clear and concise; it’s hard for them to create focus, energy, and passion around the points they want to make. If you’re talking to an exec, the first thing you’ll get asked if you haven’t made it perfectly clear in the first 60 seconds of your presentation is, ‘What do you want me to take away from this meeting?’ They don’t know how to answer that question.”

Summers and other leaders from various companies were not necessarily complaining about young people’s poor grammar, punctuation, or spelling—the things we spend so much time teaching and testing in our schools. Although writing and speaking correctly are obviously important, the complaints I heard most frequently were about fuzzy

thinking and young people not knowing how to write with a real voice.

## **6. Accessing and Analyzing Information**

Employees in the 21st century have to manage an astronomical amount of information daily. As Mike Summers told me, “There is so much information available that it is almost too much, and if people aren't prepared to process the information effectively it almost freezes them in their steps.”

It's not only the sheer quantity of information that represents a challenge, but also how rapidly the information is changing. Quick—how many planets are there? In the early 1990s, I heard then–Harvard University president Neil Rudenstine say in a speech that the half-life of knowledge in the humanities is 10 years, and in math and science, it's only two or three years. I wonder what he would say it is today.

## **7. Curiosity and Imagination**

Mike Summers told me, “People who've learned to ask great questions and have learned to be inquisitive are the ones who move the fastest in our environment because they solve the biggest problems in ways that have the most impact on innovation.”

Daniel Pink, the author of *A Whole New Mind*, observes that with increasing abundance, people want unique products and services: “For businesses it's no longer enough to create a product that's reasonably priced and adequately functional. It must also be beautiful, unique, and meaningful.” Pink notes that developing young people's capacities for imagination, creativity, and empathy will be increasingly important for maintaining the United States' competitive advantage in the future.