High-quality summer learning programs provide students with the skills they will need to compete in the global economy.

3

Summer learning programs and student success in the global economy

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Most world leaders agree that the key to economic success in the global age is the development of innovative skills and products that can be used all over the world. As a result, many countries are instituting major educational reforms that aim to improve instruction in core academic subject areas and foster creativity and innovation among their students.

This article provides an overview of the role and importance of education and out-of-school time in the global economy and of strategies employed by several countries to boost competitiveness, with a focus on the United States. We discuss key skills necessary for success in the global economy and the ways in which high-quality summer learning programs can uniquely and successfully foster these skills. We argue that strategic investment in high-quality summer learning programs is necessary to help countries compete in the global economy. Despite decades of research on the need for and benefits of such programs, the summer months largely have been ignored by education policymakers, particularly in the...
United States, as a strategy to close the achievement gap and support youth development.

The global response

Although the skills needed to be competitive in the global economy are similar across the world, countries have employed very different strategies to achieve their goals. Some major countries, such as the United States, have focused almost exclusively on improving reading and math skills through assessment and strict accountability systems, while others, such as China, Singapore, and Japan, have targeted reforms that build creativity and innovative thinking.¹ Despite these different approaches, countries as diverse as China, Russia, South Africa, Chile, Jordan, and Brazil are now reviewing their education systems and making fundamental reforms in order to prepare their students to be successful in the knowledge-intensive, high-tech, and globalized economy. This current era of reform provides great potential for countries to share and learn from each others’ experiences.²

Singapore, which often leads the world in international test scores, has also instituted new curriculum reforms intended to offer a holistic education that fosters creativity and innovation. These reforms include initiatives focused on the following areas:

- Innovation and enterprise
- Character development
- Cocurricular activities, such as sports
- New approaches to pedagogy
- Holistic recognition of student achievement³

Many of the highest-performing Asian countries are now moving toward a more holistic approach to education, which stands in contrast to current reforms in the United States. As Vivien Stewart of the Asia Society notes, “While the U.S. bemoans its relatively low standing on traditional measures of academic achievement, other countries that score well on such tests are trying to create
more flexible learning environments and to produce the less easily measured skills of creativity and problem solving, which are considered important in a knowledge-intensive, high-tech, global environment.”

To illustrate this trend, China issued an executive order in 2002 that significantly minimized the consequences of testing and is now implementing a more flexible curriculum that offers more electives and choices for students.

Global competitiveness and education in the United States

There has been an abundance of recent attention on global competitiveness in the United States and its implications for education. President Bush, Congress, the National Governors Association, and other prominent organizations have led initiatives to boost competitiveness through education and other strategies. In addition, several recently released national reports have warned Americans that their educational system is not preparing students to compete in the global economy. Two reports in particular, Tough Choices or Tough Times, by the New Commission on the Skills of the American Workforce, and Rising Above the Gathering Storm, by the National Academies, have recommended increased investment in research and development, as well as major structural changes to the U.S. educational system in an effort to help drive innovation and ensure that the United States maintains its current standard of living.

The report by the National Academies led to the development and passage of the America Competes Act by Congress in summer 2007. This bipartisan legislation is designed to increase research investment; strengthen educational opportunities in science, technology, engineering, and mathematics from elementary through graduate school; and develop an innovation infrastructure. Included in the legislation is the Summer Term Education Program for Upward Performance (STEP UP), designed to provide funding to states to develop high-quality summer learning programs for students from kindergarten through grade 8 that focus on math, technology, and problem solving. Although the legislation has been
passed, it remains unclear if and when STEP UP will be funded. Nevertheless, this is a major step forward in making summer learning a national policy priority, and efforts to advance the program will continue from a variety of policymakers and advocacy organizations.

The New Commission on the Skills of the American Workforce report takes a much closer look at the role of the U.S. education system in driving innovation. The report recommends a complete overhaul of the current system and argues that students must have skills that allow them to succeed “in a world in which comfort with ideas and abstractions is the passport to a good job, in which creativity and innovation are the key to a good life, in which high levels of education—a very different kind of education than most of us have had—are going to be the only security there is.”

**Out-of-school time and global competitiveness**

Recognizing that the current educational system is not effectively preparing students for success in the global economy, many countries are looking to out-of-school-time or informal learning as a key strategy to boost both academic achievement and innovation.

The United States is considering changes to the traditional school year through expanded-day, expanded-week, and expanded-year initiatives. The C. S. Mott Foundation has created the Time, Learning, and Afterschool Task Force, which recently released a major report, *A New Day for Learning*, recommending a comprehensive new learning system that focuses on out-of-school time as a strategy to increase academic achievement and boost creativity. Although much of the debate around expanded learning focuses on academic preparation, there is also growing awareness that many of these programs should be different from the traditional school day and offer experiential learning and enrichment opportunities that develop creativity and problem-solving skills. Many out-of-school-time advocates are anxiously awaiting proposed changes to the landmark No Child Left Behind Act, which will likely include...
a variety of expanded learning initiatives that will have an impact on the field for years to come.

**United Kingdom**

The United Kingdom is currently redefining the use of out-of-school time and is including a wide range of enrichment activities in addition to academics. Nevertheless, the initiative is meeting with resistance from groups that believe that students should play more and study less, which is a common argument in the United States as well.

Many of the U.K. programs are run in areas with high numbers of immigrants, resulting in a focus on global and cultural literacy that boosts knowledge of other countries and cultures. The United Kingdom is also looking at the summer months as a key component of out-of-school time, and most education authorities and local councils run a wide selection of activities and summer schools. However, since they are coordinated at the local level, there is little program consistency across the country and no guarantee that all students are served. Similar to the United States, these programs include a mix of remedial summer school, enrichment activities designed to stimulate innovation and creativity, and exercise to combat childhood obesity. There is also a growing recognition that the United Kingdom looks to out-of-school time as another strategy to remain globally competitive, although efforts are still in the early stages and lack the formality of U.S. programs (F. Mortlock, personal communication, September 5, 2007).

**Andalusia, Spain**

In Spain, where many young people cannot find work, special efforts are being made to educate the students who are most at risk of dropping out of school and not participating in the global economy. Many immigrant and Roma (often referred to as gypsy) students in the Andalusia region of Spain are particularly at risk, and very few graduate from high school. Michael Malany Morris, a Fulbright scholar working on improving equity and access for these students, tells of a public high school graduation where only 23 of the original 120 students graduated, which is common for the area. Morris and others are
mobilizing the resources of the nearby University of Granada to work with many of these students and are creating community partnerships to provide afterschool learning programs designed to boost achievement and keep youth in school. Although they face a variety of challenges, Morris is hopeful the community learning activities will help these students succeed in school and life and ultimately allow them to participate in the global economy (M. Morris, personal communication, September 4, 2007).

The importance of engaged learning

In the United States and other countries, many policymakers have considered expanding learning time in an effort to increase student achievement. Studies measuring the effect of increased time on student achievement have been mixed, but research does show that the correlation between time and student achievement gets stronger with more engaged time.10

Human development research shows that young people are often more motivated and engaged in the learning process in out-of-school-time settings, such as afterschool programs and summer camps, than during school.11 The dynamic field of neuroscience helps us understand that when the fun stops, the learning often stops too. Willis writes, “The truth is that when we scrub joy and comfort from the classroom, we distance our students from effective information processing and long-term memory storage.” She quotes A. Kohn: “When students are engaged and motivated and feel minimal stress, information flows freely through the affective filter in the amygdala and they achieve higher levels of cognition, make connections, and experience ‘aha’ moments. Such learning comes not from quiet classrooms and directed lectures, but from classrooms with an atmosphere of exuberant discovery.”12

These findings about how children learn best and how youth spend their time when not in school are important. Rather than focusing simply on how much time youth spend in learning
activities (the quantity), attention should also be paid to how the activities are structured and delivered to reap the greatest and most sustained academic and developmental benefits (the quality). These findings have significant implications for policymakers looking to boost achievement and innovation in their students since summer programs provide extensive opportunities for engaged learning.

Engaged learning in Brazil

Another strategy for ensuring that children are engaged in learning is for programs to be responsive to youth culture and needs. An outstanding example of this type of program is Project Clicar in São Paulo, Brazil. Project Clicar is an activity-based, informal education program for at-risk youth based at the Estação Ciência, a public science museum. In addition to students, the museum attracts nearby youth who are not enrolled in school and might otherwise wander the streets. Rather than push these children away, the museum has chosen to provide interesting and engaging educational activities.

Project Clicar was formed in 1995 by a partnership between the museum and the Childhood and Adolescent Studies and Research Center, a nongovernmental organization. A major goal of the project is to provide free computer access to all youth, as well as individual attention to their interests and needs. Project Clicar staff listened to youth to discover their interests and organized the program around these needs. Since then, the project has provided youth with computers with Internet access, printers, Webcams, books, games, and art supplies, as well as space for learning and conversation. The academic component of the program is developed by educators experienced with at-risk youth and is constantly revised to meet the changing needs of the youth it serves. As a result, Project Clicar has provided a stimulating environment for at-risk youth that encourages personal and academic growth “without losing sight of the world from which the children come and their own knowledge base.”13 Similar to the program in Andalusia,
Project Clicar is helping youth who typically fall through the cracks to be engaged learners with the potential to participate in the global economy. A social worker at the project underscores this transformation by stating, “We have kids here who have no formal education but can sit down with you and discuss the era of silent film.”

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**The importance of high-quality summer learning opportunities**

The central goal of summer programs is to give young people the opportunity to use their imaginations and develop their skills in the following ways:

- **Engagement**—finding something that interests them and developing a specialized skill or talent
- **Exploration**—trying something new or experimenting with hands-on, outdoor, or project-based activities
- **Enrichment**—field trips, arts, music, international studies, or other activities not in the curriculum

Summer learning opportunities also provide time and flexibility to present and teach rigorous content in engaging ways that may not occur during the traditional school day. Summer adds more time for learning to young people’s schedules, but as the research illustrates, it is even more critical to ensure that such time is filled with meaningful, engaging experiences.

Research from the Bill and Melinda Gates Foundation has found that nearly half of all high school students who drop out do so because they are bored and not engaged in school. This lack of engagement is a major obstacle to education reform efforts, but is one that summer programs are uniquely positioned to address. In fact, recent research on effective out-of-school programs has shown that content delivered in interesting and innovative ways can improve young people’s interest and performance in school and learning.
In the current climate of high-stakes testing and strong accountability, many policymakers and advocates are quick to deride any educational initiative that hints of something “fun.” However, these types of hands-on, creative activities are exactly what many young people need and so often find in out-of-school-time initiatives. By creating art murals, repairing computers, hiking in the mountains, playing an instrument, or learning a new language, youth can experience the thrill of learning something new and the joy of discovering the relevance in what they are learning. They are given the freedom to experiment and learn by doing. These types of summer learning activities can help motivate young people to learn rigorous academic content when they return to school in the fall.

Over a hundred years of research demonstrate that young people experience learning setbacks over the summer without regular opportunities to practice what they have learned during the school year. Lower-income children are disproportionately affected by setbacks in reading, falling nearly three years behind their more affluent peers by the time they reach middle school. New research from Johns Hopkins University shows that unequal access to summer learning opportunities accounts for two-thirds of the achievement gap between lower- and higher-income young people. Higher-income youth typically gain access to a wide variety of enriching and informal learning experiences over the summer that provide opportunities for sustained engagement, such as camp and trips to cultural centers and museums; lower-income youth do not have the same resources or opportunities and often spend time in self-care or settle for lower-quality programs.

Although most extended-year proposals closely mirror more school, these proposals ignore the rich literature on human development and brain research that suggests that other contexts, settings, and delivery mechanisms may be equally important to youth learning and development. They also ignore the types of skills needed in the global economy and the fact that middle- and upper-income families are currently paying significant sums of money to provide summer experiences to their children that are very different from those in school.
**High-quality summer learning programs in action**

A brief review of three high-quality programs in the United States illustrates the ability of summer learning programs to develop both content knowledge and creativity in students. It is important to note that there is no one best model for summer learning programs. Rather, these and other summer programs share a commitment to quality programming and to meeting the needs of young people, families, and their communities during the critical summer months.

**Higher Achievement Program**

Higher Achievement conducts its Summer Academy throughout the Washington, D.C., area, serving almost five hundred middle school students. The students attend the program forty hours each week for six weeks, tackling a challenging curriculum, experiencing campus life, and learning effective techniques for the approaching school year. Of the students who attended Higher Achievement’s Summer Academy, 76 percent of those with a C average were able to raise their average an entire letter grade, and more than half of the students noticed a significant increase in their standardized test scores.18

Higher Achievement uses a multicultural curriculum that combines skill acquisition with experiential learning activities and academic skill building. Unique activities include measuring the amount of carbon dioxide in a running tailpipe and simulating a United Nations debate.19 In all subject areas, scholars are introduced to advanced concepts in engaging ways that increase academic confidence and achievement, heighten cultural awareness, and reinforce standards-based skills. Perhaps most important, students are encouraged to delve deeper, fostering the type of intellectual curiosity that is critical to future success.20

**Summerbridge Pittsburgh**

Summerbridge Pittsburgh offers participants two consecutive summers of a free life-changing experience that empowers middle school students facing limited opportunities to achieve academic
success. Each summer, more than one hundred rising seventh and eighth graders from public schools in the Greater Pittsburgh Region participate in the program. Teachers create an individualized education plan for each student, and the results are impressive: 92 percent of students who complete the program graduate from high school and 80 percent enroll in college, in comparison to, respectively, 59 percent and 42 percent of students nationally.21

The intensive academic experience of Summerbridge Pittsburgh consists of four core classes: math, writing through literature, public speaking, and wellness. In addition, the program works to increase participants’ life skills by meeting with a mentor daily to support the development of organizational and goal-setting skills. Throughout the summer, young people participate in enrichment activities and cultural field trips that promote the type of informal learning available to more affluent students. Students thrive in the supportive and challenging environment. For example, Andre Green, a fourteen-year-old Summerbridge alumnus, credits the program for much of his success. In July 2007, at a Summer Learning Day event on Capitol Hill, he provided the closing speech at a national policy forum on summer learning and earned a scholarship to a private high school in the Pittsburgh area.

**Center for Talented Youth**

The Center for Talented Youth, based at Johns Hopkins University in Baltimore, offers high-performing students from around the world the opportunity to engage in challenging academic work with other gifted youth. The focus of these summer programs is rigorous academics and learning; nevertheless, the social experience that results from bringing students together is an integral part of the program.

CTY offers a variety of programs for students of all ages. Of particular interest is a summer course held at Princeton University that focuses on global issues in the twenty-first century. Students examine topics ranging from war to pandemics to data security and wrestle with major sociopolitical challenges. CTY also offers a wide variety of science courses where students spend at least two hours a day doing lab or field work. Students gather and interpret data,
master important scientific concepts, and recognize relationships among physical phenomena.22

**Gaining skills for success**
All three of these high-quality summer programs provide students with activities that promote learning in an engaging manner that is different from the typical school environment. By focusing on real-world problems and solutions, students gain the problem-solving and critical thinking skills that are necessary for success in the global economy.

These and other high-quality summer programs tend to be hybrid models, combining enrichment, academic, and recreational opportunities. Such models offer a strong framework and compelling evidence for policymakers around the world seeking to develop high-quality summer learning programs and systems.

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**Recommendations**
To compete in the global economy, countries need to redesign and rethink their educational system so that young people have relevant and engaging learning experiences throughout the day, early to late, and year round. Rather than mandating calendar changes, policymakers and others need to look for creative ways to give students and parents more choices over the summer and at other times during the year.

A comprehensive learning system would certainly include strong, high-quality schools, but also other educational partners, such as community-based organizations, recreation centers, camps, science centers, libraries, museums, and universities. We need a much broader, more expansive view of learning if we are truly going to prepare young people to thrive in the global economy and function as citizens in a progressive nation.

Children will not be prepared for the future using methods and approaches from the past. If the United States and other countries are to maintain their standard of living, they will have to keep a
razor-sharp technological edge and produce workers who have both much higher levels of academic knowledge than they do now and a deep vein of creativity that enables them to generate innovative products and services. In today’s increasingly competitive world, countries such as the United States need to reenvision summer as a season for learning and enriching young people’s lives and helping more young people go back to school ready to learn and succeed.

Notes


22. For information on the program for tenth through twelfth graders at Princeton University, go to http://cty.jhu.edu/summer/princeton/prncourses.html. For information on the science program for seventh grade and above, go to http://cty.jhu.edu/summer/catalogs/ossience.html.

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