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Doublethink: The Creativity-Testing Conflict

By Yong Zhao

Doublethink is "to hold simultaneously two opinions which canceled out, knowing them to be contradictory and believing in both of them," according to George Orwell, who coined the phrase in his novel *1984*.

American education policymakers have apparently entered the zone of doublethink.

They want future Americans to be globally competitive, to out-innovate others, and to become job-creating entrepreneurs. Last year, the Obama administration **announced** a \$1 billion-plus public-private initiative to support entrepreneurial activities, which included support and rhetoric surrounding youth-entrepreneurship education. And the U.S. Department of Education says that "entrepreneurship education as a building block for a well-rounded education not only promises to make school rigorous, relevant, and engaging, but it creates the possibility for unleashing and cultivating creative energies and talents among students."

State leaders have taken similar actions. California, Massachusetts, and Oklahoma have begun exploring the development of measures to gauge the extent to which schools foster creative and entrepreneurial qualities in their students, according to a Feb. 1, 2012, **article** in *Education Week*.

In the meantime, the policymakers want students to be excellent test-takers. The federal government is racing to the top of standardization and standardized testing; states are working hard to make two subjects common *and* core for all students; an increasing number of teachers are being paid based on their students' test scores; and students are fed with an increasingly narrow, standardized, uniform, and imagination-depleted education diet. All these measures are intended to improve students' academic achievement, or, in plain English, test scores.

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"What brings great test scores may hamper entrepreneurial qualities."

But test scores are not measures of entrepreneurship or creativity. Not even scores on the intensely watched and universally worshiped Program for International Student Assessment, or PISA, are good indicators of a nation's capacity for entrepreneurship and creativity.

In doing research for **my book** *World Class Learners: Educating Creative and Entrepreneurial Students*, I found a significant negative relationship between PISA performance and indicators of entrepreneurship. The Global Entrepreneurship Monitor, or GEM, is an annual assessment of entrepreneurial activities, aspirations, and attitudes of individuals in more than 50 countries. Initiated in 1999, about the same time that PISA began, GEM has become the world's largest entrepreneurship study. Thirty-nine countries that participated in the 2011 GEM also participated in the 2009 PISA, and 23 out of the 54 countries in GEM are considered "innovation-driven" economies, which means developed countries.

Comparing the two sets of data shows clearly countries that score high on PISA do not have levels of entrepreneurship that match their stellar scores. More importantly, it seems that countries with higher PISA scores have fewer people confident in their entrepreneurial capabilities. Out of the innovation-driven economies, Singapore, South Korea, Taiwan, and Japan are among the best PISA performers, but their scores on the measure of perceived capabilities or confidence in one's ability to start a new business are the lowest. The correlation coefficients between scores on the 2009 PISA in math, reading, and science and 2011 GEM in "perceived entrepreneurial capability" in the 23 developed countries are all statistically significant. (By the way, these countries have also traditionally dominated the top spots on the other influential international test, the Trends in International Math and Science Study, or TIMSS.)



—Chris Whetzel

China's Shanghai took the No. 1 rank in all three areas of the **2009 PISA**, but the scores do not have any bearing on China's creativity capacity. In 2008, China had only 473 **patent filings** with or granted by leading patent offices outside China. The United States had 14,399 patent filings in the same year. Anil K. Gupta and Haiyan Wang put those figures in a broader context, writing in *The Wall Street Journal* last year: "Starkly put, in 2010 China accounted for 20 percent of the world's population and 9 percent of the world's GDP, 12 percent of the world's [research and development] expenditure, but only 1 percent of the patent filings with or patents granted by any of the leading patent offices outside China." And 50 percent of the China-origin patents, the writers added, were granted to subsidiaries of foreign multinationals.

Moreover, what brings great test scores may hamper entrepreneurial qualities. Standardized testing and a focus on rote memorization, for example, are perhaps the biggest enemies of entrepreneurial capability. A contrast between Finland and the East Asian countries illustrates this point. Although Finland's entrepreneurship activities do not rank as high as its PISA performance, the Finns possess a much higher level of perceived entrepreneurial capabilities than the East Asian countries. In the **2011 GEM survey**, 37 percent of Finns reported having the capability for entrepreneurship, more than 20 percentage points higher than the Japanese

(14 percent), at least 10 percentage points higher than the South Koreans (27 percent) and Singaporeans (24 percent), and nearly 10 points higher than the Taiwanese (29 percent). This difference may come from the different style of education in Finland and the East Asian countries.

Unlike their peers in high-performing East Asian nations with well-established reputations for authoritarian and standardized-testing-driven education that emphasizes rote memorization, Finnish students do not take standardized tests until the end of high school. In fact, Finnish schools are a standardized-testing-free zone, according to Pasi Sahlberg in his book *Finnish Lessons: What Can the World Learn From Educational Change in Finland?* As a result, students in Finland are not pushed toward rote memorization. Finnish education is certainly not nearly as authoritarian as its Asian counterparts.

Most important, as the education historian Diane Ravitch **observed** in *The New York Review of Books* earlier this year: "The central aim of Finnish education is the development of each child as a thinking, active, creative person, not the attainment of higher test scores, and the primary strategy of Finnish education is cooperation, not competition."

The United States saw a decline of creativity over the past two decades, as a 2010 *Newsweek* article **reported**. Titled "The Creativity Crisis," the article cites research by Kyung Hee Kim, an educational psychology professor at the College of William & Mary in Williamsburg, Va. Kim analyzed performance of adults and children on a commonly used creativity measure known as the Torrance Tests of Creative Thinking. The results indicate a creativity decrease in the last 20 years in all categories. This decline coincided with the movement toward more curriculum standardization and standardized testing in American schools exemplified by the No Child Left Behind Act. "NCLB has stifled any interest in developing individual differences, creative and innovative thinking, or individual potential," Kim **said** in an interview on the Encyclopaedia Britannica blog.

Standardized testing rewards the ability to find the "correct answer" and thus discourages creativity, which is about asking questions and challenging the status quo. A narrow and uniform curriculum deprives children of opportunities to explore and experiment with their interest and passion, which is the foundation of entrepreneurship. Constantly testing children and telling them they are not good enough depletes their confidence, which is the fuel of innovation. So, by any account, what policymakers have put in place in American schools is precisely what is needed to cancel out their desire for creative and entrepreneurial talents.

I don't know how policymakers can hold, simultaneously, these two ideas, creative entrepreneurship and test-driven curriculum standardization, that both research and common sense recognize as contradictory unless they change the slogans of 1984's Oceania, "War is Peace, Freedom is Slavery, and Ignorance is Strength" into "Standardization is Innovation, Uniformity is Creativity, and Testing is Enterprising" for education today.

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We examined the total creativity competency score as well as the four different skill areas: Preserves new Ideas; Seeks Challenges; Broadens Skills and Knowledge; and Changes Physical and Social Environment. The students' ACT and SAT scores were compared with their scores on the ECC-I. Results indicate that students with lower ACT scores, scored higher overall on the creativity survey than students with high ACT scores. There was a negative correlation between the students' capturing creativity scores and their SAT scores. This indicates that students with higher SATs rated themselves lower in capturing creativity scores.

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Doublethink is notable due to a lack of cognitive dissonance—thus the person is completely unaware of any conflict or contradiction. George Orwell created the word doublethink in his dystopian novel *Nineteen Eighty-Four* (published in 1949); doublethink is part of newspeak. In the novel, its origin within the typical citizen is unclear; while it could be partly a product of Big Brother's formal brainwashing programmes,[2] the novel explicitly shows people learning doublethink and newspeak due to peer pressure and a desire to "fit in", or gain status within the Party—to be seen as a loyal Party member. Doublethink is a process of indoctrination whereby the subject is expected to simultaneously accept two mutually contradictory beliefs as correct, often in contravention to one's own memories or sense of reality. Doublethink is related to, but differs from, hypocrisy. George Orwell invented the word doublethink (as part of the fictional language of Newspeak) in his 1949 dystopian novel *Nineteen Eighty-Four*. In the novel, its origins within the citizenry is unclear; while it could be partly a product