
By Brian P. Coppola and Yong Zhao

The education systems in China and the United States not only are headed in opposite directions, but are aiming at exactly what the other system is trying to give up.

In the United States, through programs such as No Child Left Behind and Race to the Top, as well as calls for more standardization and accountability in higher education, we are embracing the sort of regimented, uniform, standards-based, and test-driven education that has dominated Asian education systems for thousands of years.

What seems to be underappreciated in this country is how actively the Asian systems are trying to embrace the values and outcomes that we appear to be so willing to abandon: specifically, the American penchant for promoting creativity, individualism, innovation, and nonconformity. In other words, for developing and nurturing the diverse talent that can result from an ethos of coloring outside the lines.

In China obstacles still stand in the way of rapid, comprehensive change, obstacles that are tied to the culture's long history of inflexible, standards-based, test-driven education. Nonetheless, teaching for creativity, innovation, and invention are seen there, as throughout the rest of Asia, as the holy grails of the U.S. education system.

Entrepreneurialism is an easy goal, and more than a few professors in China have been known to say that what is needed is the ability to prepare students who are able to generate more intellectual property for their country. And while many parts of the U.S. college system provide the freedom for this, it is predicated on our core understanding that creativity is more or less an inherent trait, and
that what we need to do for our students is to get out of their way, and to provide them with the environment and resources in which they can grow.

Fundamentally, the education system in the United States may be no more capable of actively teaching creativity and innovation than the education system in China is; it may well simply be that the system in China has been more systemically effective at suppressing it. Success may be tied as much to what is not done—avoiding the smothering uniformity of standardization—than to what is done.

In the United States, we certainly matriculate smart high-school students who are as ready to embrace memorization and regurgitation as their Chinese counterparts (although they are not nearly so good at it). In American higher education, however, at least in the highly social and networked institutions where being part of a residential campus community still characterizes the experience, we intentionally mash students together into multiple, diverse settings. We are good at systematically constructing and providing learning environments where students' inherent, and perhaps dormant, creative and inventive skills can flourish.

China is beginning to understand what our real strength has always been: By embracing a broadly divergent array of knowledge and experience, we bring diverse and unexpected perspectives to any problem or situation, allowing us to adapt rapidly to change. By not standardizing anything, we end up being able to handle everything.

People who excel in our education system are comfortable with nonconformity. They understand, challenge, and reject the limits of the status quo, and they take risks. These are not easy things to measure, at least not directly, but the effects of their loss would be beyond tragic for our future. Even so, the loss of these high-value intangibles, which are essential capacities for creativity and innovation, is what the United States risks losing in a close-minded, bean-counting approach to accountability.

An appeal to reject standards and standards-based instruction and testing may seem like an invitation to embrace feel-good mediocrity, yet nothing could be further from the truth. By recognizing and finding value in the core principles of a true liberal-arts education, China is seeking to avoid the inherent problems that have
accompanied its historic approach to education—problems that the United States is already in danger of adopting.

Regulation to create uniformity in education results in undesirable outcomes, and these are showing up in our classrooms. Deviation from the norm becomes at least undesirable, if not "the wrong answer." Where once we embraced the free thinker, we now seek to correct that person according to a government-dictated knowledge base. Students and parents will routinely reject time that is spent on enrichment for enrichment’s sake, particularly on nonutilitarian skills that do not directly and explicitly train for testing relevance, including programs in reading, music, and the arts.

Learning activities that require long-term investment to create integrated and diverse understanding are rejected in favor of those that can result in short-term gains, quick fixes that can result in high test scores tomorrow, even if that information is effectively forgotten the day after tomorrow.

In the United States, we are seeing evidence of an increase in something that the Chinese have long had a name for, and which they can point to and say needs to be rejected: gaofen dineng. This term describes the undesirable situation of "high scores with low ability." It's not a new idea. Researchers in the United States are the ones who have studied this the most, and the correlation between high standardized-test scores and shallower understanding has been documented.

Certainly there are students who will do well for the right reasons; however, the education-research community is clear about what China has known for years: Gaofen dineng can be an outcome that not only relates to a student's limited understanding, but also has an adverse affect on the entire learning environment, including the performance of teachers who lose their spirit, passing on the inevitable standards of uncontested authority and a regression to mediocrity.

The United States needs to think seriously about and then learn from the changes happening in the Chinese education system. In their enthusiasm to understand and emulate our perceived strengths, our Asian colleagues are holding a compellingly interesting mirror up to us, reflecting exactly those things that have
given us a pre-eminent position for so long.

In addition, we need to replace our misplaced enthusiasm for test-based content standards with understanding, articulating, and measuring the value-added features of the American character that have served us so well for so long.

Here are a few recommendations for the United States in the context of an emergent and increasingly competitive China:

- Resist any temptation to standardize and overly regulate higher education in the name of accountability. For various reasons, including the low employment rate of college graduates, the fraudulent practices of some for-profit higher-education institutions, and reports of low-quality graduates, there is an increasing effort to impose government regulations and external standards upon colleges. These seemingly responsible actions will inevitably bring more regimentation, standardization, and testing, ruining what has made American higher education the envy of the world—and what Asian countries are eager to emulate.

- Incentivize the teaching profession. Even without the social and non-normative skills gained by students educated in the United States, students entering college in China have an inarguably stupendous knowledge base, and this reflects well on their teachers and the corresponding system of teacher education. The United States needs to attract more of our best students into teaching. Even in this era of budget austerity, we need creative, strong, visible, compelling, and cost-effective ways to make the teaching profession more appealing. One drastic measure would be to make primary and secondary teaching an income-tax-free profession.

- Reintegrate the disciplines and teacher education. Schoolteachers in China receive a high level of discipline-centered education. A system of normal schools, long abandoned by the United States, has grown in China into a set of full-fledged universities where science teaching and science research are done together. While the United States will never return to the normal-school system, some way of putting teeth into the requirement for our disciplinary and education faculties to work together on this problem is needed. To this end, we should simply require, as a condition of accreditation, a meaningful collaboration between college disciplinary units (chemistry, physics, and so on) and schools of education in the early identification, recruitment, and preparation of future teachers, including programs for engaging precollege students and putting them on this path.

- Make higher-education partnerships a priority. In a recent editorial, Stanford University's Richard N. Zare suggests approvingly that "we want China to be an ally, not an enemy." To these ends, the United States should create as many bilateral education collaborations as possible with China, in which educators from both sides spend substantial time teaching in each other's classrooms. Direct experience is an uncompromising teacher.

- Do not forget that the slope of a curve has a magnitude as well as a sign. Only 30 years ago, universities in China reopened after a 30-year hiatus in which higher education itself was held in disdain under Mao's rule. Modern China has emerged from an almost completely agrarian society since then. Not only has change happened, but it also continues to happen—rapidly.

As higher education in the United States continues to move toward centralized accountability through a system of standards and testing, which already defines the precollege education system, it risks losing the advantage that it invented. Let's not lose our penchant for questioning the status quo, for valuing and rewarding those who see things differently and have the freedom and opportunity to tell their story, and for embracing the simple act of
It is not a problem of teaching philosophy. Everyone knows what's good pedagogy. The problem is some practical issues.

First, it is much more expensive to adopt the ability-based pedagogy. When an instructor is teaching 3-4 classes of 50 students, teaching them to be able to work out some standardized questions becomes a natural choice. Even open-ended questions may become an impractical choice. There wouldn't be much interaction that is crucial to critical thinking. There would be much feedback on students' thoughts on an issue. In summary, there wouldn't be many occasions to foster students' creativity.

Second, in the ideal world where all students are highly self-motivated, it would be easy to adopt the ability-based pedagogy. The truth is that many students couldn't care less about anything besides passing a course, while instructors have fewer and fewer meanings to motivate them. Without self-motivation, it is painfully hard to an instructor to do anything that helps students to become creative. Helping them to master the basic skills through working on standardized question again become a natural choice.

Maybe we will say that instructors should work harder or become a more effective instructor. Well, it is a market economy. You get what you pay for.

“Standardization” to make education “accountable” so that it can be “efficient” seems like good policy but that is because it is the common sense of the moment or the dying moment. It is the ideology that has gotten us into the mess we are in.

Efficiency is not always good, in fact, it is often bad, frequently very bad. Accountability is sometimes necessary for "bad apples" but accountability that over reacts to the anecdotal as if it were system stifles the majority of "good" apples and ruins the human enterprise it seeks to manage. "Standardization" in education is INSANE. Every human being is unique, every human interaction is dynamic, even when they might seem similar they are not. Standardization is great when you are making a thing with clearly definable components that must come together to do x thing. But this is clearly not a good approach to forming a human being's education.

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After reading this I cannot say what is more appalling that the views stated here could actually have been stated by 2 tenured professors or that what they have stated has too often been mindlessly repeated by so many others. Either way it is a sad commentary on the state of what passes for scholarship in higher education policy.

1. I am sure it was intended by either professor here but some of this borders on what the rest of the world views correctly as the ugly American. So let me see.......it is only the American educational system that can give birth to creative geniuses. Educational systems like those in China, Japan, Korea, India, and according to these 2 authors the rest of the world can only create drones—who will always be subordinate to their superior American counterparts. Really? Of course these authors never define what they mean by "creative" nor do they present any hard evidence that would suggest that American students are more creative.

2. Indeed and I quote "people who excel in our educational system are comfortable with nonconformity." And "by not standardizing anything, we end up being able to handle everything." Really!! Of course the desire for non-conformity is also a kind of conformity. And I not sure what classroom these professors have been lost in but most American students are very comfortable with conformity. However, these are not the least of their outrageous statements. They continue to add insult to injury when they suggest that only those in "highly social and networked institutions" by which they mean "residential campus community" where they state we "mash students" together into "diverse settings." Well are American colleges that diverse? Do students at Yale mingle with the students at the University of New Haven? I think not nor do the Wall Street Banks recruit at places like the University of New Haven. Sorry to inform these authors but American Higher Education is not some social equalizer or melting pot or wonderful mosaic. American higher education is not the best of all possible worlds.

3. The authors are against any attempts to have imposed on them or higher education any oversight. Well you will never improve higher education without centralized oversight and accountability. They state that "it is predicated on our core understanding that creativity is more or less an inherent trait." They believe we just need to get out of the way of all these American born geniuses. Every student is a flower and we just need to water it and watch it grow. Really! Well clearly these 2 authors are no geniuses if they expect anyone to take what they state here seriously.

4. This growing American condescension to the rest of the world that is now being repeated by those who should know better should be taken as another sign of the sad state of American Higher Education and of course of American Society. The sign of a society in decline is one that thinks it has all the answers, that it has nothing to learn from the rest of the world, that its way of doing anything is better because it says made in America. Sorry, but it is a kind of anti-intellectualism that seems to insist as these authors do here that the traditions of civilizations thousands of years old all need to be put aside because America Knows Best. When not only is that not the case but anyone who has taught in an American university and paid attention could tell you that there is very little that American Higher Education should be exporting to the rest of the world considering what a sorry state higher learning is in America.

5. No doubt American colleges produce many "creative" students they become acting students and students in the fine arts and film and in creative writing programs and then they graduate and work in retail if they are lucky. These authors do not have a very deep understanding of creativity because having to memorize and repeat also requires creative thinking. My critique here could go further because there is much else that is very wrong with the views of these 2 professors. But repeating the lie that only American Society can create superior thinkers or ideas will make it much harder to avoid the even more displeasing idea voiced by these professors that somehow these ideas and accomplishments are unique to Americans and some how destined to rule the world. I hope not because the last thing the world needs now is more American answers to anything.

I would only say that people vote with their pocketbooks. How many foreign students come to American universities? How many go the other way? Whether or not the other systems are bad is not the point. For me, as a science type, the question becomes what does the world think. They
obviously believe that there is something in the water in American universities. Call it "creativity" or whatever, but it's a huge draw. And I believe that it is an actual existing quality in our schools that is lacking in many foreign schools, particularly in East Asia.

I believe that while the Renaissance could be characterized by its flourishing of the arts as the basis of what could be called "creative culture", today that role is played more by technology. If one wants to study the arts, then perhaps one would be willing to travel to Europe to study. But if one wants to study the natural sciences in today's world, the US is the place to be.

I don't believe that it has always been so, but in what must be one of history's greatest ironies, Hitler's policies forced virtually all of the world's top scientists to evacuate their happy homes in Europe for the relative safety and freedom of the US. Ever since, the US has been the place to be.

It's not bigoted to believe this. It's actually bigoted to deny it.

When I first started teaching at the international Vesalius College in Brussels, Belgium, over 20 years ago, I noticed a marked difference between the students from Belgium and those from the US. The Belgians knew exactly where Bosnia was, who was on which side, etc., but I could not get an opinion out of them to save my life. The Americans had no idea where in Africa or whatever Bosnia was, but they knew we had to protect our rights there, or something. I saw my role as putting the two together.

This is an IRONIC observation I've been making for years now, having taught in both countries. About the only difference is that in the USA, test-mongering is a very lucrative FOR PROFIT business!

Follow the money. We spend a great deal on education. But so much of it goes to administrators, elaborate campus amenities, and collegiate sports. Schools of education have lost the best and brightest students because they are following the money into other professions. In the past, we had the best and brightest women in the early childhood education. Now these women go into other fields for the money. Looking for a standardized "Walmart" approach to mass education has been the major search in the past thirty years. If only tests, certain methods, particular text books etc. could solve the problems and take care of it all. Again, there is a great deal of money to be made in all of these activities.

Then there has been slow but continuous undermining of support for public education over the years. The age of litigation and legislation has not encouraged non-conformity. Instead it has created a "one-size-fits-all" approach to education.

More money will not solve the problems in our education system. How it is spent could make a difference. Let us begin with the best and brightest teachers in pre-school and primary years. Building a foundation for learning and nurturing that is inherent in all children would be a good first step. Pay these teachers well and allow them to teach.

Colleges and Universities will be forced to change. It is already taking place. But let us remember that they inherit the students that are prepared in in elementary and secondary schools. It all begins in early childhood.