

# **What Resources Help Chinese Children Learn Better**

A Speech at IPA “What Works?” Education Publishing Conference

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Ladies and Gentlemen,  
Colleagues and friends,

Good afternoon!

Thank you for allowing me to take this podium with a new identity, that is, a rookie member of the IPA on behalf of the PAC. Now let me talk about the Chinese experience and progress in developing basic education for 1.4 billion.

I suppose all of you have learned that students from Shanghai, China, drew world attention after winning top scores in the Program for International Student Assessment (PISA) in 2009 and again in 2012 — an event which led to the UK’s Shanghai Teacher Exchange program to share good practice between teachers in the two countries. OECD secretary-general Angel Gurría says in his foreword to the PISA 2009 Results, “The stunning success of Shanghai-China, which tops every league table in this assessment by a clear margin, shows what can be achieved with moderate economic resources and in a diverse social context.” The AFP comments, “The youngsters of Shanghai obviously receive the best education in the world.” Former US Assistant Secretary of Education Chester E. Finn Junior exclaims, “Wow, I’m kind of stunned, I’m thinking Sputnik,” referring to the trailblazing Soviet satellite launching.

Having served education as a publisher for 40 or so years, I see what’s going on in Shanghai as a microcosm of the progress China -- the world’s most populous country -- has made in advancing basic education. Let me quote Curria again. In mathematics, he says, “More than a quarter of Shanghai’s 15-year-olds can conceptualize,

generalize, and creatively use information based on their own investigations and modeling of complex problem situations....In the OECD area, just 3% of students reach that level of performance.”

The fact, however, is that not just the students in Shanghai can reach that level, but their peers in many other parts of my country can do the same. When Beijing’s junior secondary school students were taking the math exam in the capital city’s 2014 senior secondary school entrance examinations, 75 percent of them correctly answered the following math problem:

$$\text{Given that } x-y=3, \quad (x+1)^2 - 2x + y(y-2x) = ?$$

Why is it that the Chinese students can accomplish something like this? This is exactly the topic of my speech today: “What resources help Chinese children learn better?”

### **First, setting great store by basic education**

Chinese basic education entails, on a scale unseen anywhere else in the world, preschool education, nine-year compulsory education, and senior high school education.

According to 2015 statistics, firstly, 43 million receive three-year preschool education in kindergartens; secondly, 140 million are in 243,000 schools for nine-year compulsory education; and thirdly, 24 million study in 13,200 senior middle schools. In total, over 200 million are receiving basic education in my country.

Behind these statistics are huge government investment rising rapidly every year. In 2012, education expenditure accounted for 4% of the GDP for the first time in China’s financial history; in 2014, it nearly doubled to reach 2,640 billion yuan. Such impressive growth in education outlays shall be maintained to promote education equity and raise education quality, according to the “Thirteenth Five-Year Outline Program for National Economic and Social Development.”

In November 2007, the Chinese Ministry of Education set up a teaching quality watchdog agency to ensure basic-education policies are carried out to the letter. Since then, teaching in six disciplines of learning in compulsory education has been closely watched, and students’ learning performance in critical fields and stages appraised.

At the same time, differences in compulsory education quality between regions, and between schools are studied. Future changes and tendencies are also forecast to steer government.

## **Second, curricular reform in basic education**

During the decade 2001-2011, Chinese educators went through a vital curricular reform in basic education. Since then profound changes have taken place in the teaching philosophy, contents and methodology of the curricula for primary and secondary courses.

**I. Teaching philosophy renovated.** Every school and every teacher are urged to promote a new mode of education hinged on self-decision, collaboration and exploration, to abandon old-fashioned teacher-centered ways of doing things, and to combine Chinese, mathematics and science courses with minors' everyday life, nature, society, and the world in their experience and imagination.

**II. Teaching content updated and enriched.** With the influx of a wealth of curricular resources, Chinese teachers nowadays are working hard to help students read more and open up their horizons by way of pictures, letters and the Internet. Education authorities in Weifang, Shandong Province, for example, initiated a "sunshine reading initiative," in which resources pooled from around the city are used to match every chapter in Chinese textbooks. Thus, when students finish studying a textbook by the end of a semester, they have actually read eight books and their reading experience is expanded.

**III. Teaching methodology improved.** In the course of curricular reform, teachers have come to terms with the idea that education is a student-centered undertaking. Acting on this understanding, they strive to cater teaching to the learning needs of students. In the meanwhile, they are also keenly aware of the importance to keep their students focused in the classroom, for only with rapt attention can, say, a second-year junior high student grasp the 15 issues concerning a parabola before a class is dismissed.

Here, I would like to emphasize that schools in China are not allegedly obsessed with exams and homework. In Shanghai, for instance, it is a must for all students to spend at least one hour a day on

sports or keep-fit activities. Morning exercises are compulsory before a day of schooling begins, and a time slot is preserved for physical exercises between the second and third classes in the morning. Students are also required to join in afterschool athletic programs.

### **Third, underachieving schools revamped, education equity ensured**

The Chinese government earmarked 120 billion yuan in 2015 to improve schooling conditions of basic education in rural areas. In the 2000-2015 period, 949,000 school teachers in underdeveloped areas received living allowances totaling 2.3 billion yuan; 310,000 teachers were enrolled to make up for teaching staff shortages in 30,000 rural schools; and 1,300 counties measured up to government-mandated standards for balanced development in compulsory education.

Schools in Shanghai are doing a good job in guaranteeing balanced education development. They have eliminated lopsided gaps in learning results among local students. This explains why students in that municipality were able to pass the global student assessment with flying colors despite tight PISA sampling conditions. Such a brilliant feat can also be attributed to two factors. On the one hand, teachers from brand-name urban schools are dispatched to new schools in large residential areas and outskirts so that under the municipality's unified human-resource deployment, curricular management, and teaching-results appraisal, these schools can get a nice head start. On the other, the municipal government buys services from education service agencies to boost underachieving rural schools. According to a 2011-2013 third-party assessment report, 69% of these schools were graded "excellent", and 31% "qualified"; 80% of the schools scored fine results in their effort to increase the number of "excellent classes"; 90% of the parents believed their children had come a long way in their studies; and in every junior middle school, more graduates passed entrance exams and enrolled in senior middle schools.

### **Fourth, teachers' sense of responsibility enhanced, research systems set up**

Schools goes nowhere without good teachers. Basic education is hinged on schools. In China, where teaching has been prized as a noble career since antiquity, teachers' income rises steadily thanks to steady growth in government's education input. In my country teaching is among Top Three on a chart of most blissful jobs. As a result, more outstanding college graduates are devoted to basic education, and the majority of school teachers hold bachelor's-degrees.

A distinctive teaching and research system has become a hallmark of basic education in China. Government education departments sponsor a variety of research and discussion programs to help teachers improve their professional caliber, and every school runs its own teaching research panels. In Shanghai, junior middle school teachers work for an average of 40 hours per week, but spend only one-third of the time, 14 hours to be specific, on classroom teaching, and they devote an average of four hours to cooperation or exchanges in teaching research with colleagues.

#### **Fifth, families attach importance to children's education**

Homework is part and parcel of every student's school and extra-curricula life in China. Exercises constitute the lion's share of their homework in addition to audio, reading and reciting practices. Chinese parents take it for granted that students must do homework at night, and that's why they willingly take time from family life to watch their children do homework. Educated parents, in particular, regard it as family routine to accompany their children in their studies.

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All in all, basic education in China has made great headway, but at the same time, it is up against stern challenges.

For one thing, exam-oriented education is still bringing a heavy load to bear on our students. This is because, firstly, to have good schooling and excel in studies is a tradition dating back to ancient times when the imperial exams were regarded as the only way to officialdom and a promising future; secondly, under the influence of the long-time "one family, one child" policy, every family in China expects their only child to score high points in exams to qualify for

good junior middle schools where they stand a good chance to enroll in elite universities; and thirdly, competition for good schooling is intensified as a result of acute shortages in quality education resources and teachers as well as the lopsided ratio between too many students and too few top-notch schools and colleges.

For another, China's dual urban-rural social structure, with most people living in rural areas while most schools, teachers and equipment are located in cities, has resulted in inequity in geographical distribution of education resources across the land.

Furthermore, our effort to instill creativity and critical ways of thinking in our students still leaves much to be desired, a problem that can also be attributed to exam-oriented ways of doing things. When our students are having their hands full tackling a heavy schooling load, they may find it hard to engage in inventions and explore the unknown.

To tackle the challenges, the Chinese government has enacted a ten-year (2011-2020) education informatization plan. The plan calls for promoting equity in education through informatization, so that children in underdeveloped regions can get their fair share of quality education resources. The plan also calls for improving teaching ability among 6 million teachers and enhancing school-running proficiency among 50,000 schoolmasters across the land.

To tackle the challenges, our basic education should not be limited to small-time innovations and creations any more. Rather, individual students' potentials must be tapped. To this end, we have got to allow every student to study in diverse ways, master different contents, and foster rich and varied knowledge structures. Only thus can they find different solutions to issues once they have established themselves in society.

To tackle the challenges, we must learn from our international colleagues who are imbued with sophisticated education expertise, for only in this way can we keep making progresses.

Ladies and gentlemen! And all my colleagues present at this meeting, please extend a hand and join me in striving for a promising future!