How Shanghai does it: answers and questions about educational achievement in Shanghai

Cross-national student assessment

Shanghai, a city of 23 million people, has consistently performed at the top of the PISA rankings in reading, mathematics, and science. In light of a recent comprehensive World Bank study, what do we know about how Shanghai achieved these results? And what questions still remain unanswered?

Shanghai has become well-known for its top results on the Programme for International Student Assessment (PISA) in 2009 and 2012. While results from the latest round of assessments conducted in 2015 are still pending, the World Bank published an in-depth study in 2016 of how Shanghai has achieved its high educational performance. Here we highlight the key points from the World Bank study, How Shanghai Does It: Insights and Lessons from the Highest Ranking Education System in the World, and analyze the questions about Shanghai’s education system that still remain unanswered.

Analyzing Shanghai through the Systems Approach for Better Education Results (SABER)

The World Bank has developed a set of diagnostic tools, called the Systems Approach for Better Education Results (SABER) for evaluating national education policies and policy implementation in light of international research on effective educational practices. SABER touches on 13 policy domains; a World Bank team selected four of these for a systematic analysis of Shanghai’s education system: teachers, school finance, school autonomy and accountability, and student assessment. To conduct the study, the team made use of SABER’s theoretical framework for each domain, rubrics for analyzing policy intent, and school leader questionnaires for analyzing policy implementation, along with other available data and information.

Attracting and Developing an Excellent Teaching Force

Arguably the most interesting aspect of this report is the detailed portrait it paints of the state of the
teaching profession in Shanghai. It shows that teaching is “an attractive and respected middle-class profession,” generating significant competition for teaching positions, with new teachers receiving a salary equivalent to 89% of GDP per capita (compared to 84% in Japan, 79% in the United States, and lower figures in many other countries). Teacher candidates have a three- or four-year university degree with six months of teaching practice before they earn their qualifications, followed by a one-year induction period to determine if they have the necessary skills and a vocation for teaching.

Working conditions are attractive, with good school infrastructure and plenty of time for preparation due to a system of teacher specialization that allows each teacher to focus on teaching a specific subject to a few different classrooms of students: out of a 40-hour work week, Shanghai teachers on average spent only 14 hours on actual teaching duties. Teaching contracts last only five years and renewal is subject to a performance assessment that depends on more than just student test results. Teachers are required to complete a certain amount of continuing professional development (360 hours in the first five years, and more at higher levels of the profession) and there is a clear path for career advancement through a five-tier ranking system. Teachers who earn the top rank of “outstanding” may be called upon to assist lower-performing schools or to serve as advisors in university teacher training programs.

Financing, Autonomy, Accountability, and Assessment

The report also shows Shanghai’s strengths in education financing, with systems in place to ensure that all schools have the necessary physical and human resources, as well as systems to verify the efficient use of educational resources and ensure transparency through regular audits. The practice of providing extra resources to disadvantaged students and lower-performing schools helps to achieve a fairly high degree of equity. The balance of autonomy and accountability is also quite strong, although the report notes that parents are not very involved in school governance. Finally, Shanghai—as in China generally—makes systematic use of student assessments, and is exploring ways to mitigate the negative effects of examination pressure through measures such as assessing physical health in addition to cognitive achievements, and allowing students to have multiple chances to demonstrate their abilities rather than just one single high-stakes exam.

Equity in the Shanghai Education System

The report cites PISA data indicating that Shanghai’s education system is one of the most equitable in the world, with a significant proportion of disadvantaged students scoring at the highest proficiency levels in all subjects. Yet there are at least three issues that negatively impact access to quality education for all in Shanghai:

First, the report notes that although extra resources are provided to needy children and youth, these students must prove their need every year in order to continue obtaining this assistance.

Second, the system strongly tracks students at the end of lower secondary school (grade 9) by using examination scores to send them to one of three different types of programs; those who end up in the lower-ranked types of schools also consistently perform the worst on assessments.

Third, there appears to be a large number of students who are excluded from Shanghai’s education system entirely because their parents are in Shanghai as internal migrants and do not have the appropriate documentation to allow their children access to public schooling. The World Bank report mentions this issue several times, citing Chinese National Population and Family Planning statistics...
that reveal that 5.1% of migrant children residing in Shanghai did not attend school. However, what is not mentioned in the report are the high numbers of children and youth who remain in rural areas, even though their parents work in Shanghai, because they can only access schooling in their rural areas of origin. This issue was debated in 2014 in an exchange of remarks between Tom Loveless of the Brookings Institution and the PISA assessment team. The World Bank report does not explore the implications of this problem in sufficient depth, however, to clarify what it means for the overall effectiveness of Shanghai’s education system.

Summary

Shanghai’s approach to education is clearly achieving outstanding results for those who can participate in it, including a large number of disadvantaged children and migrant children with the required documentation. However, it remains unknown how the system would perform if it were to absorb all of the relatively disadvantaged children whose parents live within the city. In 2015, students from three additional cities—Beijing, Jiangsu, and Guangdong—took the PISA assessment along with their Shanghai peers. Perhaps this gradually expanding sample of Chinese students will help to shed further light on the characteristics that can lead to high performance—and high inclusion—of all students within the system.
