

Results and Reflection

PISA 2009 in Shanghai

ZHANG Minxuan

mxzhang@shnu.edu.cn

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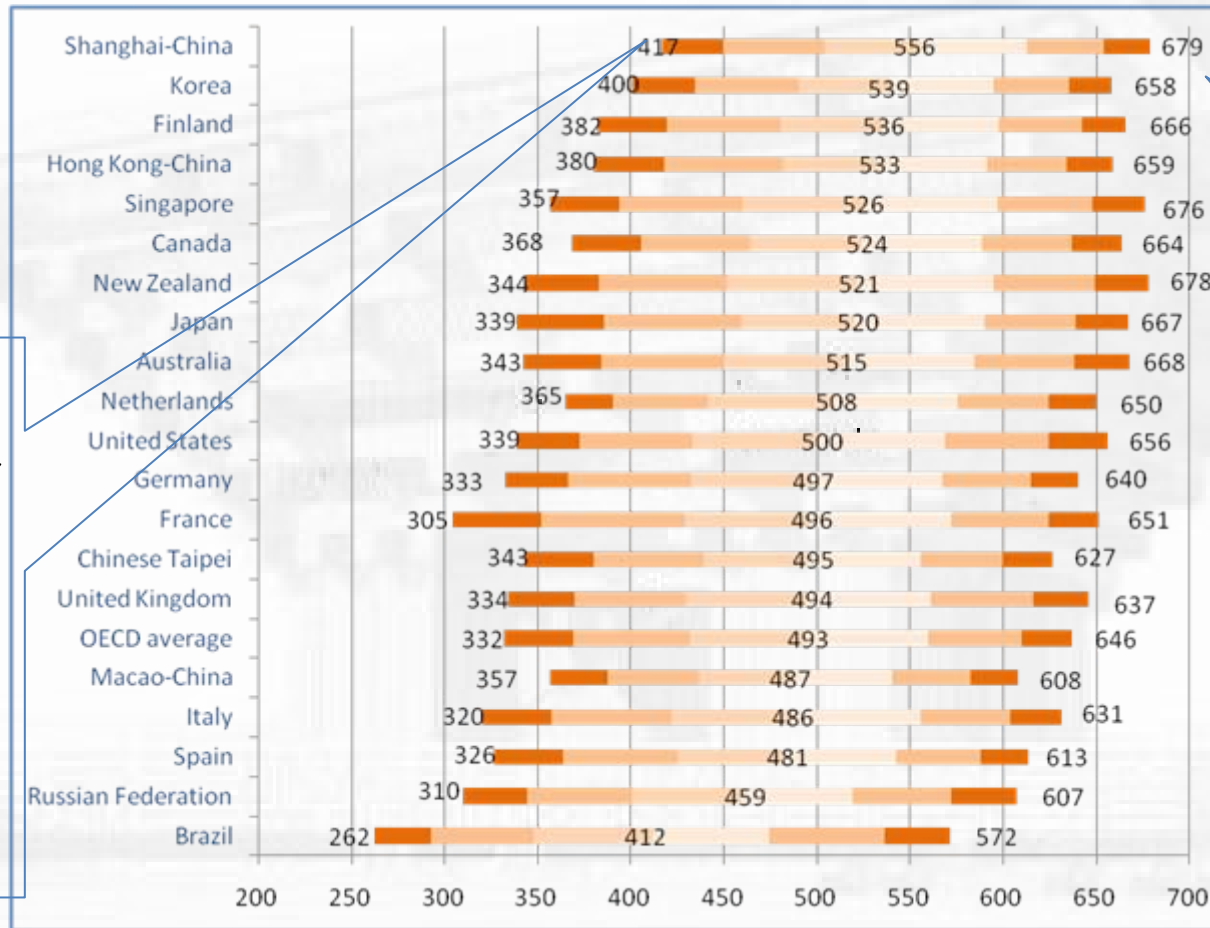
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I. Results of SHPISA 2009

• Reading performance within countries & regions



The fifth percentile of score for Shanghai-China, Singapore and New Zealand are 417 points, 357 points and 344 points respectively. The score of Shanghai is higher than that of Singapore by 60 points and New Zealand by 73 points

The ninety-fifth percentile of score for Shanghai-China, Singapore and New Zealand are 679 points, 676 points and 678 points respectively. So there is little difference

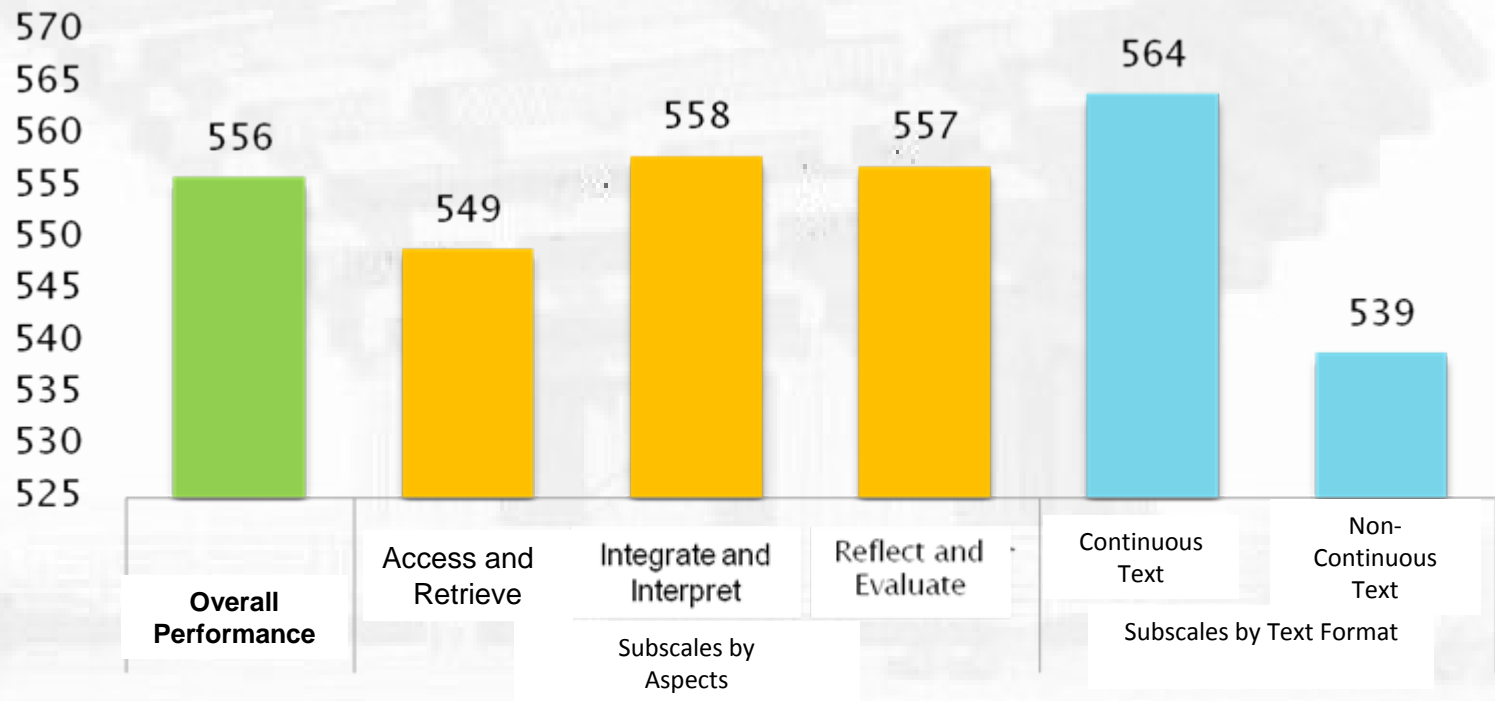


I. Results of SHPISA 2009

• Reading Subscale

For Shanghai students, their performances on non-continuous text are much lower than those on continuous text.

Their performances on the Access and Retrieve subscale are much lower than those on the Integrate and Interpret, and Reflect and Evaluate subscales.



I. Results of SHPISA 2009

▶ Engagement of reading 1

PISA surveys the breath of student reading. Index of **Online Reading Activities** of Shanghai students: -0.35 , it is significantly lower than the OECD average.

Reading emails, 23.59%

Chat online, 62.79%

Reading online news, 37.65%

Searching online information to learn about a particular topic, 32.64%

Searching for practical information online, 20.73%



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I. Results of SHPISA 2009

• Engagement of reading 2

Time student spent for learning per week (minutes) in reading lessons at school.

	Language of instruction	mathematics	science	total
Singapore	283.17	343.49	345.15	971.81
Canada	326.44	322.61	317.48	966.53
Hong Kong China	274.25	268.98	301.75	844.99
Macau China	265.11	275.81	259.60	800.52
USA	257.69	258.45	258.32	774.46
Shanghai China	256.11	274.10	201.88	732.09
OECD Average	219.11	213.78	202.71	635.60
Korea	211.97	217.42	179.66	609.05
Japan	211.34	234.49	147.97	593.80
Finland	150.28	171.67	194.38	516.32



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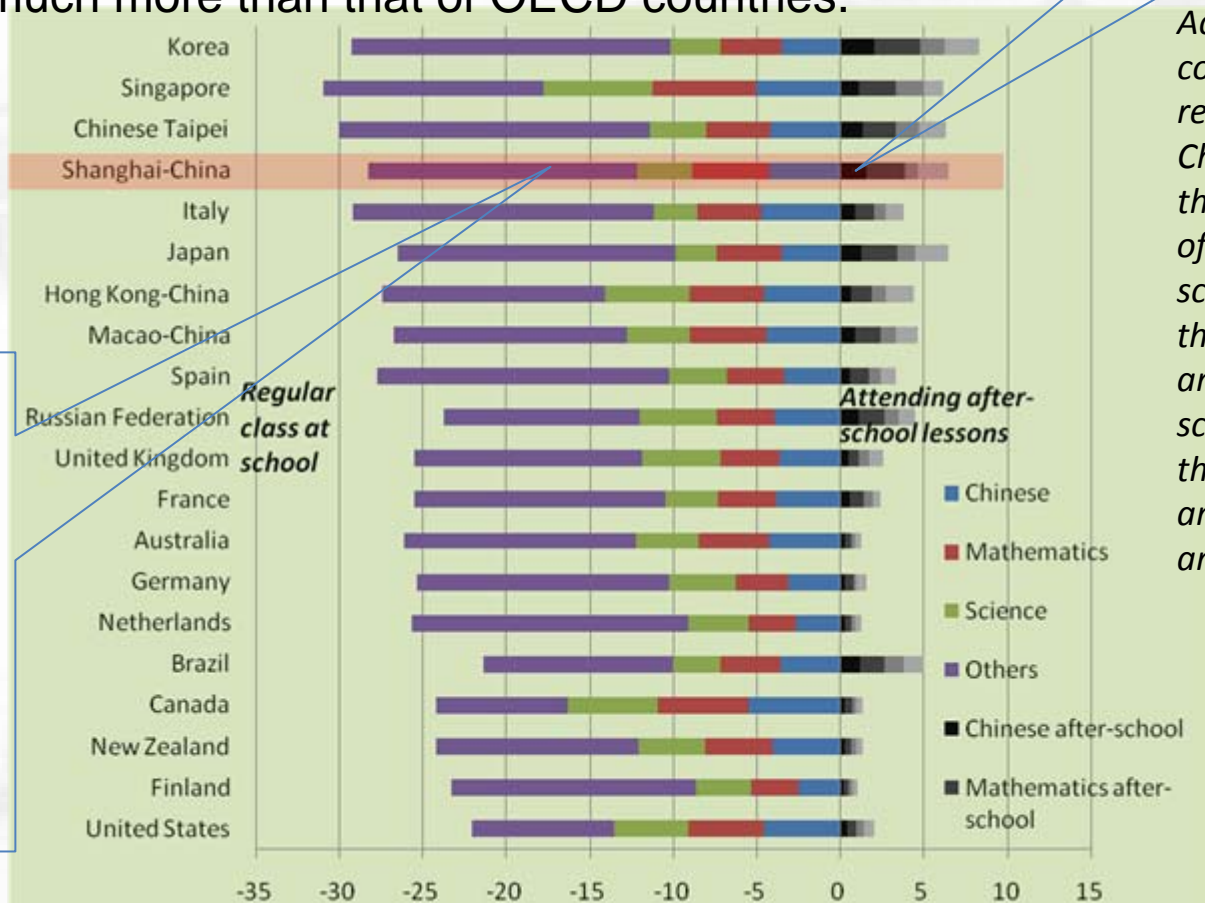
I. Results of SHPISA 2009

• Engagement of reading 3

But Shanghai student learning and reading time after school is much more than that of OECD countries.

The learning time of Attending after-school lessons is 6.5 hrs and total class time is 34.8 hrs, ranking the 4th

Students In shanghai, the learning time of regular class at school per week is 28.3 hours, ranking the 5th among the selected 20 countries and regions



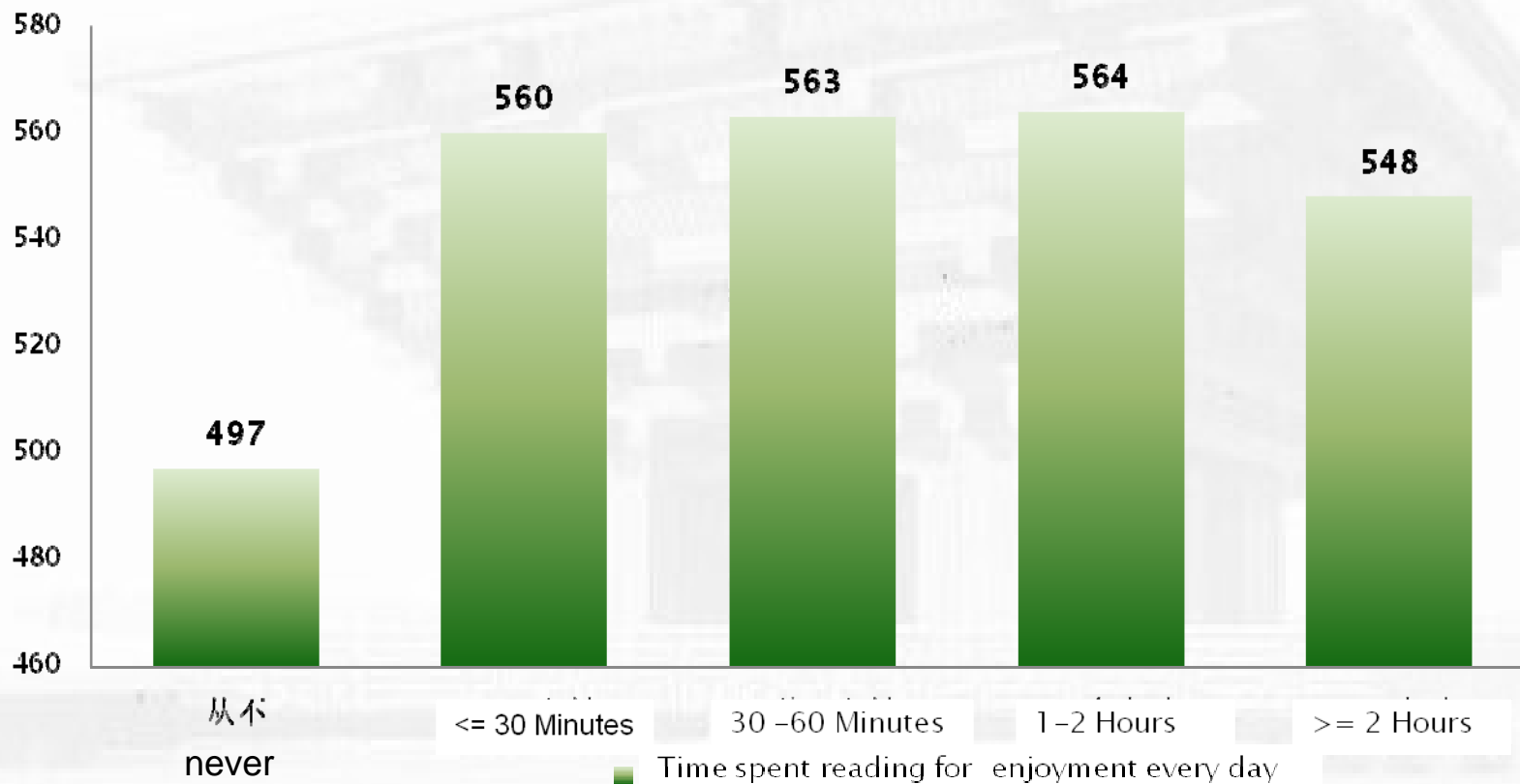
Across all the 65 countries and regions, Shanghai-China rank: the 4th with amount of class time at school per week the 9th with total amount of after-school class the 12th with total amount of both in and after-class time



I. Results of SHPISA 2009

• Engagement of reading 4

Those who spent some time reading for enjoyment every day and do that for less than 2 hours daily have the best performances.



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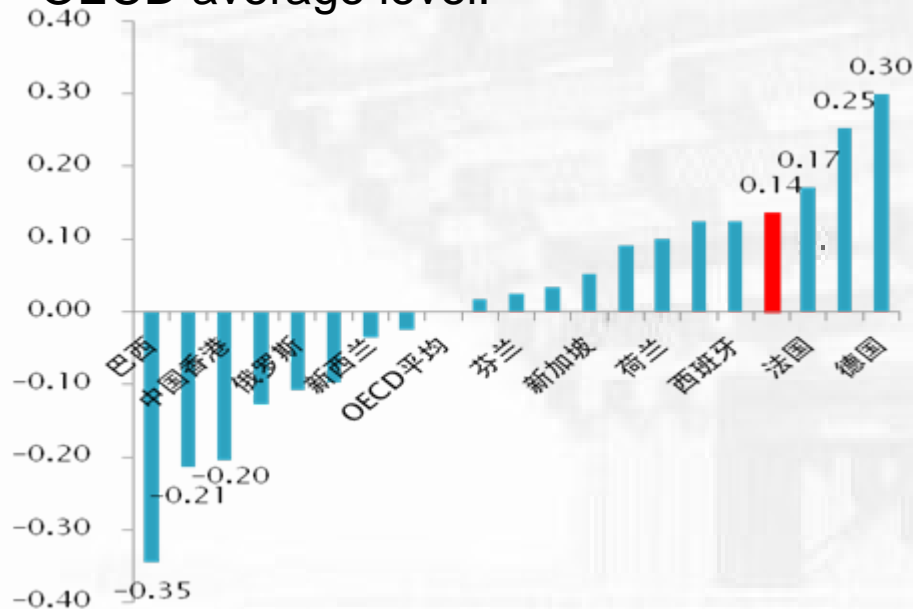
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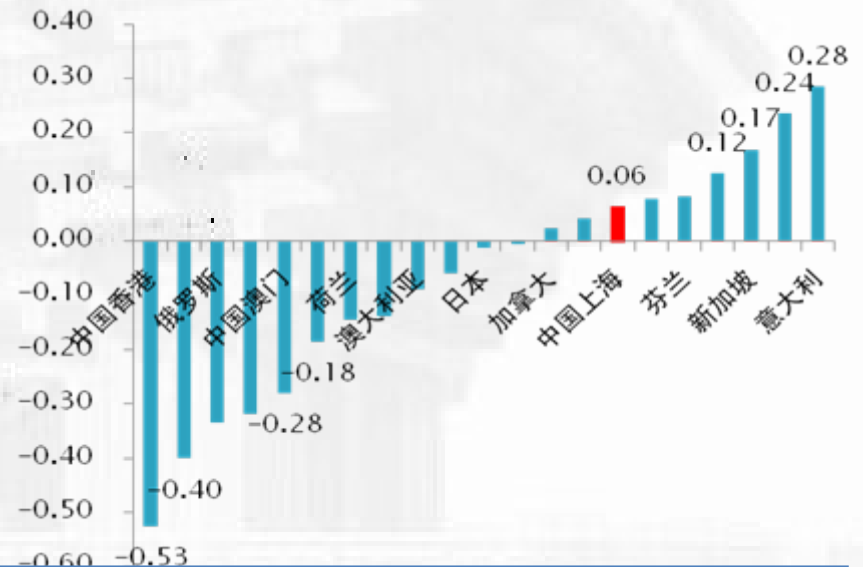
I. Results of SHPISA 2009

• Strategies of reading 1.

The Index of Understanding and Remembering value for Shanghai students is 0.14, and that of the Index of Summarizing is 0.06. Awareness of the effectiveness of these two reading strategies is significantly higher than the OECD average level.



Meta-cognitive Strategy:
Understanding and Remembering



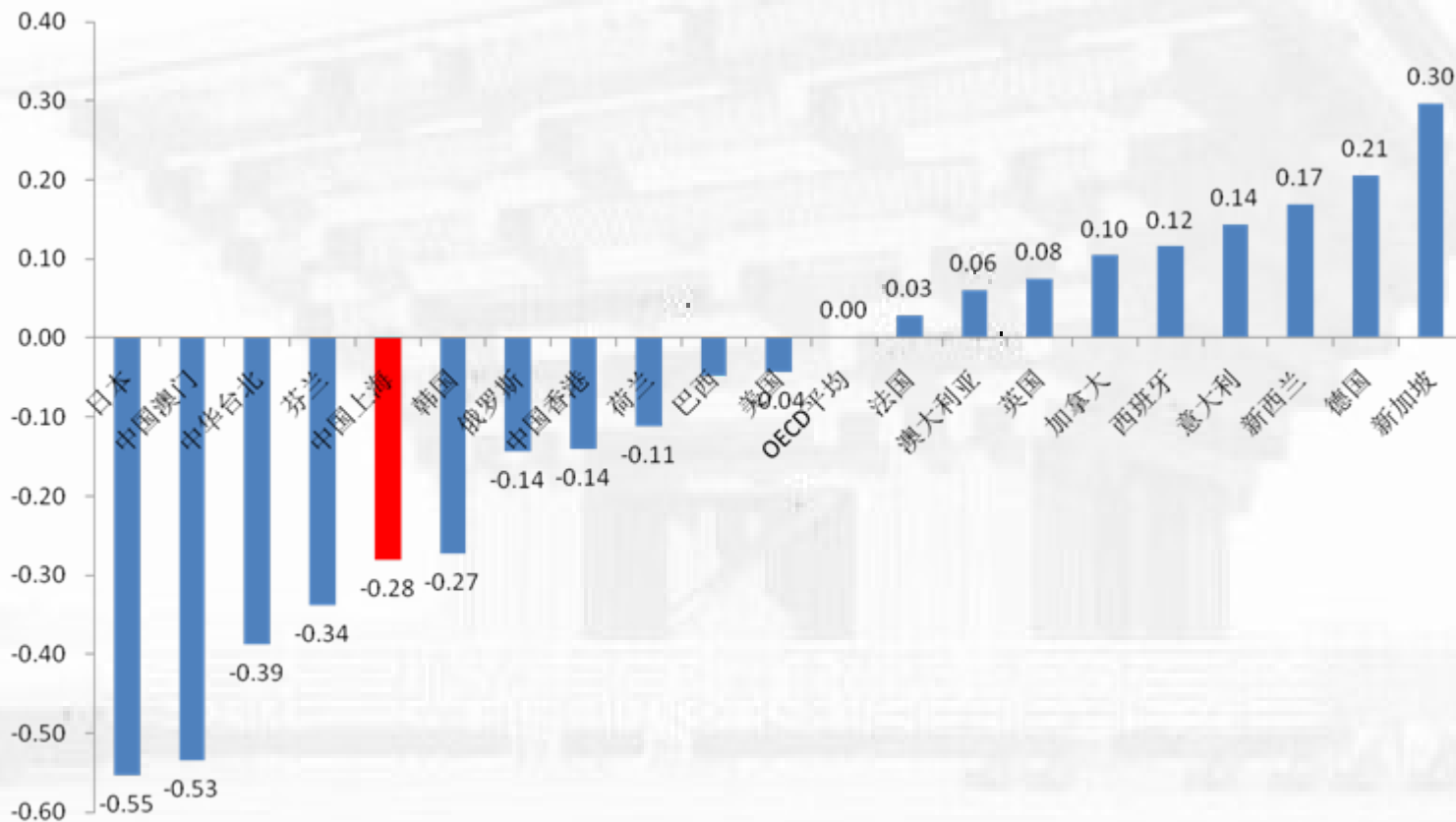
Meta-cognitive Strategy:
Summarizing



I. Results of SHPISA 2009

• Strategies of reading 2.

The Index of **Control Strategies** value for Shanghai students is -0.28, significantly lower than the OECD average.



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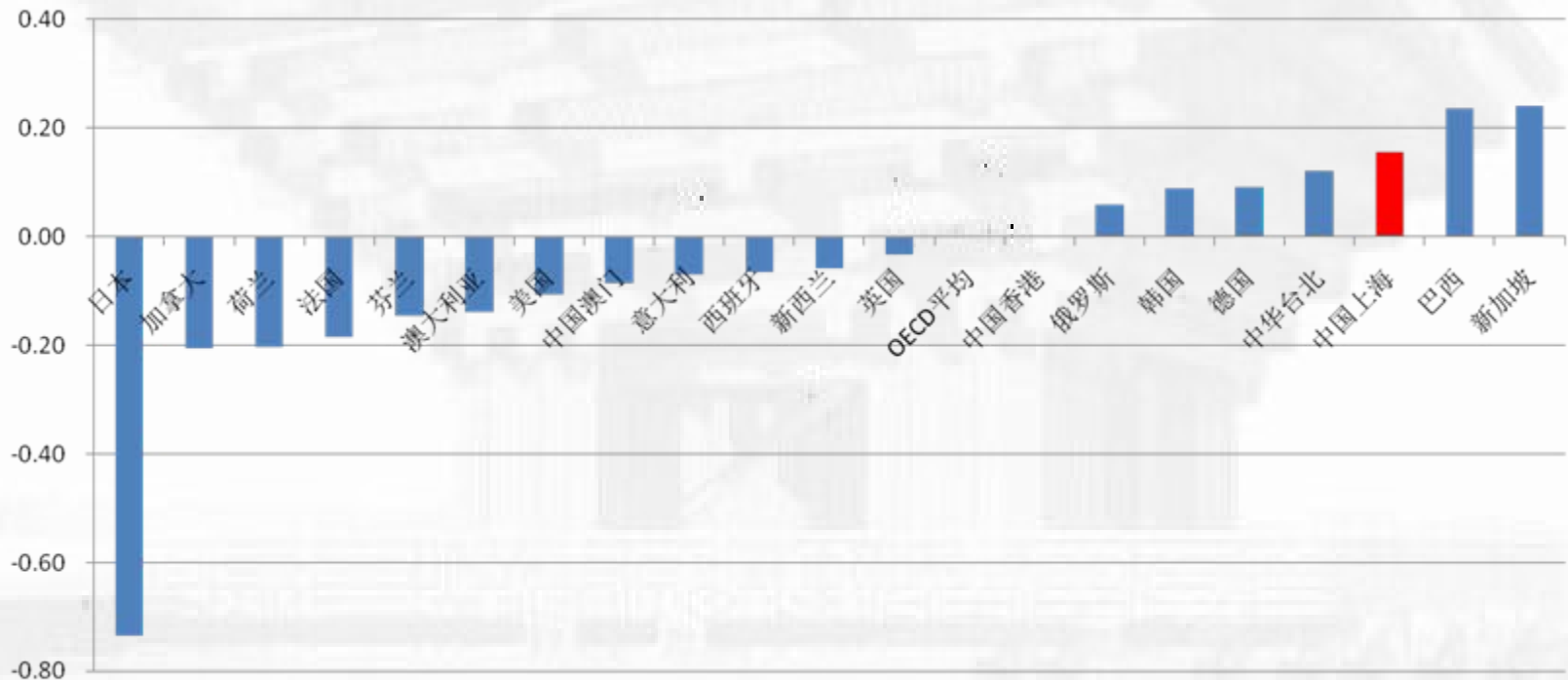
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I. Results of SHPISA 2009

• Strategies of reading 3.

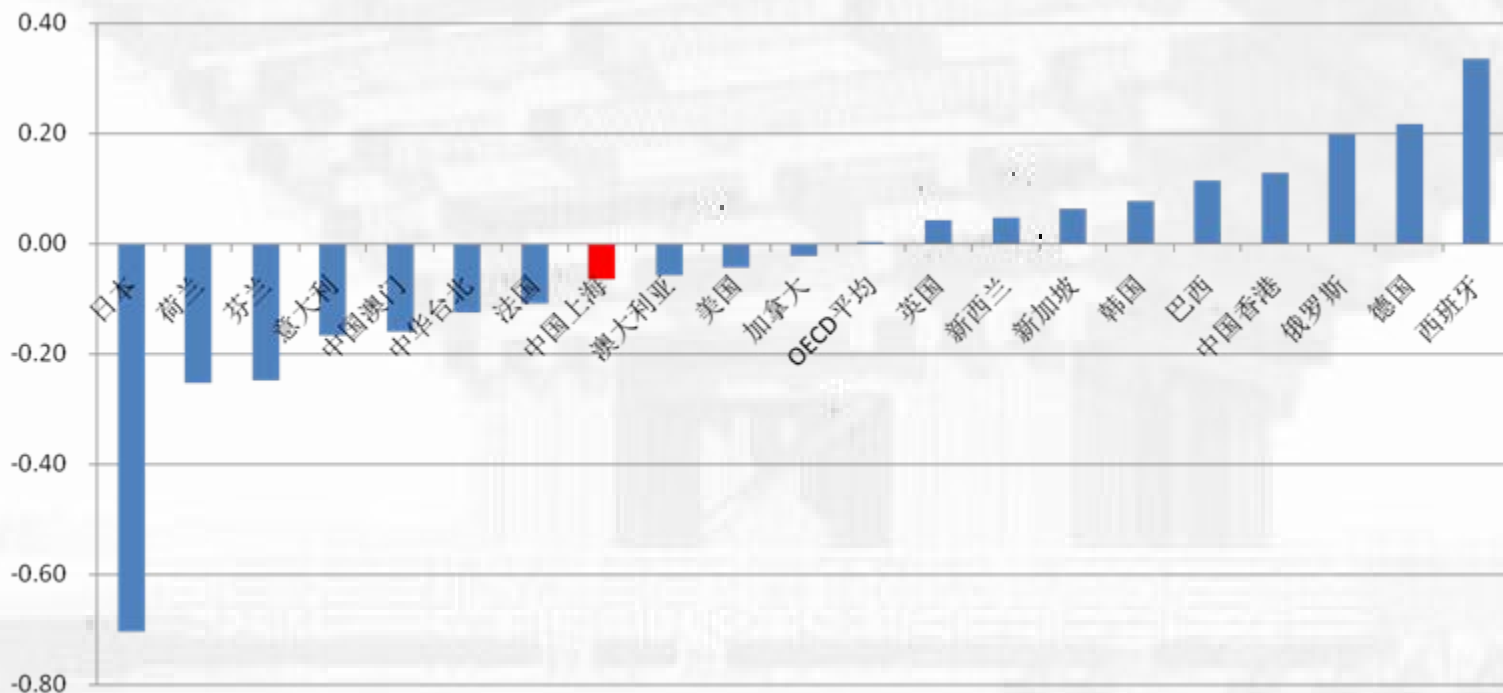
The Index of Elaboration for Shanghai students is 0.16. The level of using elaboration strategies in learning is significantly higher than the OECD average.



I. Results of SHPISA 2009

• Strategies of reading 4

The Index of Memorization for Shanghai students is -0.07. The level of using memorizing strategies in learning is significantly lower than the OECD average level.



I. Results of SHPISA 2009

• ESCS and reading performance: equity and quality

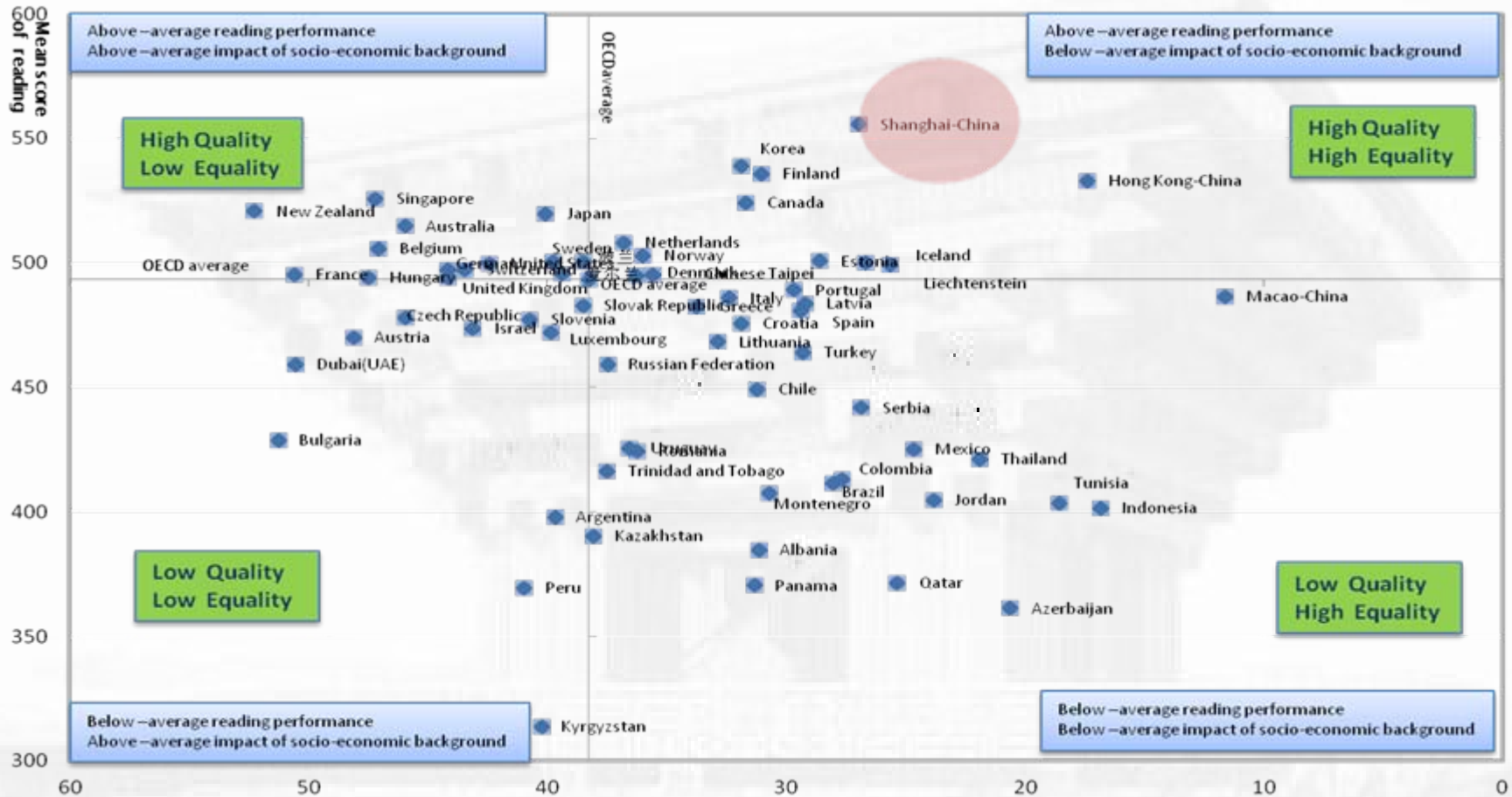


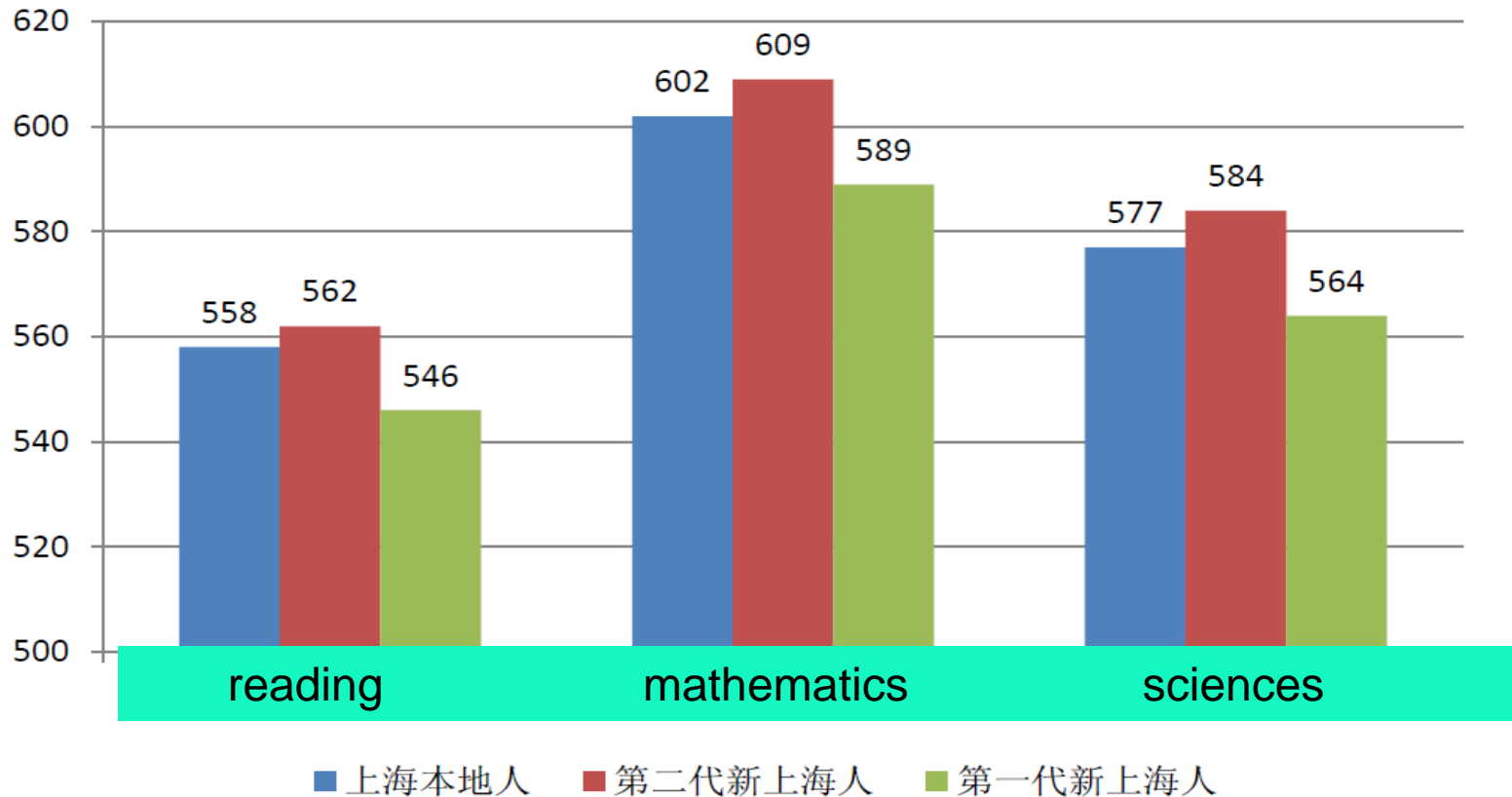
Fig. 3 Relationship between ESCS and the slope of reading performance regression line



I. Results of SHPISA 2009

• Immigration and reading performance

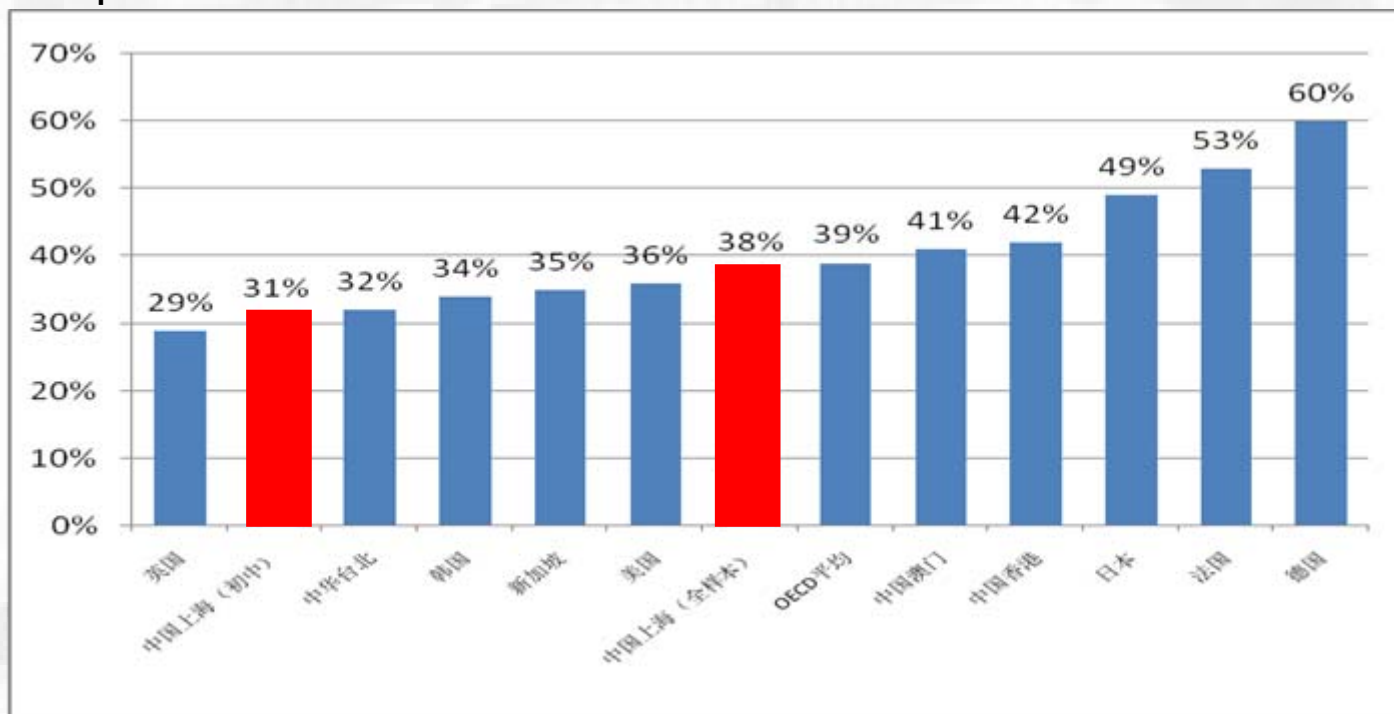
The students of second generation in Shanghai obtain highest scales in reading, mathematics and science.



I. Results of SHPISA 2009

Variation among schools:

Schools (with various categories) can make large gaps and variations to student learning achievements. If the schools in a system are equal to all students, the variation would be small. The OECD average is 39%, and Shanghai is 38%. It shows Shanghai's school system is quite equal in PISA criteria.



II. Reflection to Shanghai PISA 2009

1. Motivations for us to join the PISA

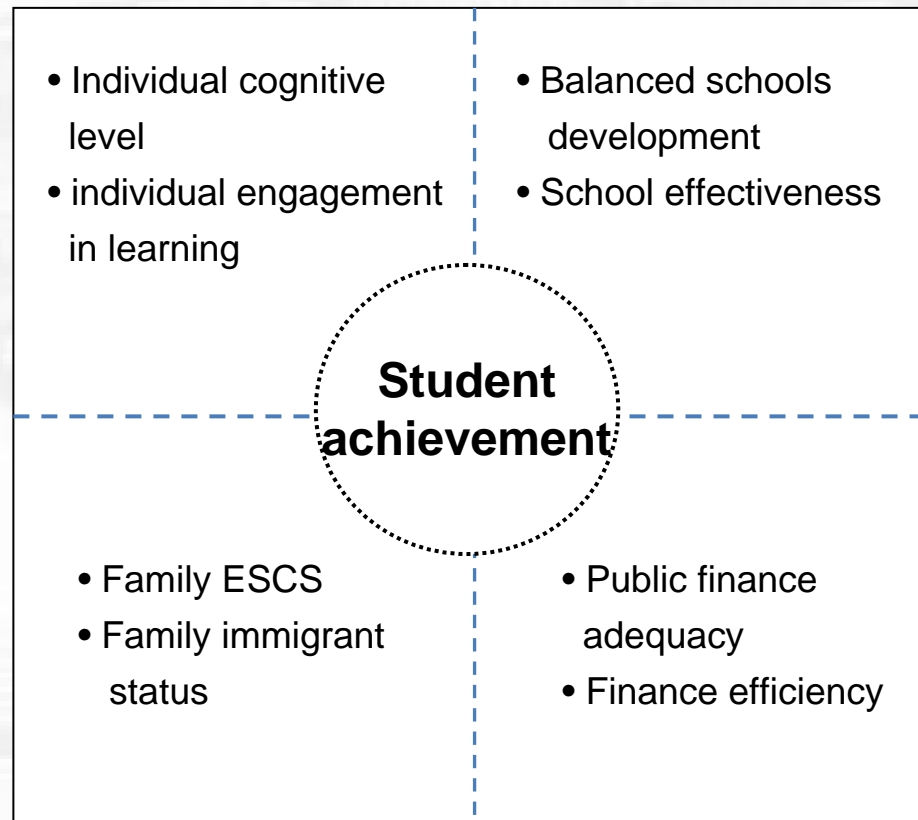
- (1) To know the quality and equity of Shanghai basic education in the global comparison.
- (2) To learn the evaluation technical approaches and to see the shortcomings, problems and even blindness in basic education in Shanghai.
- (3) To learn to improve education policies on the base of data, evidence and research.
- (4) For our reform and development in education, to keep learning the successful experience from other countries.



II. Reflection to Shanghai PISA 2009

Our understanding of the PISA structure:

PISA is an international multi-dimensioned testing survey for policy improvement with a changing yardstick.



II. Reflection to Shanghai PISA 2009

2. Attitudes to Shanghai PISA “top” results

- (1) PISA is not an Olympic Game, nor a competition for First or Golden Medal; PISA is not to select one or two best examinees or “zhuang yuan”(状元); but PISA is an international testing survey!
- (2) Shanghai is only a city, yet most participants are countries; and China is a country with imbalanced development.
- (3) Some countries know that reading, math and science are their weak areas after their realization of free compulsory education, therefore, we might compare our strength with other’s weakness.
- (4) What are student costs for our top results? Could we do something to reduce the costs for our students?



II. Reflection to Shanghai PISA 2009

3. Un-testified successful traces for Shanghai results:

- In the last half year, Shanghai was asked time and again: “What are secrets for PISA results and successful basic education?” Therefore, we considered about it for visitors. Our answer might be simple— “2+6”:
- 2 for two strong traditional cultural believes.

(1) High expectation on education— all the people, from royal families to the poor and from professors to peasant-workers, have very high expectation on education. Many legends, stories and idioms transmit such edu. expectation generations to generations, as our strong believe in Chinese culture.

(2) Diligence and hard-work in studying make difference and changes— People are often told many stories about it (汉孙敬头悬梁, 战国苏秦锥刺股). Even when teachers introduce Edison, the great American innovator, they always remind students Edison’s saying “Genius is one percent inspiration and ninety-nine percent perspiration”.



II. Reflection to Shanghai PISA 2009

3. Un-testified successful traces for Shanghai results:

- 6 for “six new modern reforms and developments in last 30 years:
 - (1) **Open-door policy and learning from the world** (*professors and ordinary teachers*)
 - (2) **Reform in curriculum and teaching** (*2 rounds, 3 parts now; new teaching approaches*)
 - (3) **Teacher in-service training and professional development** (*5 ways*)
 - (4) **Balance school development and help weak schools in various ways** (*3 ways to improve hardware, 3 ways to improve software*)
 - (5) **Transformation of “income of Education Fee Affiliated to Tax” (教育费附加) to weak areas** (*half of the income, 2 billion a year*)
 - (6) **Quota of student recruitment of best high school to every middle school** (*30%, 60% in future*)



II. Reflection to Shanghai PISA 2009

4. Problems and shortcomings we found and try to overcome now:

- (1) Strengthen reading in non-continuous text and digital text
- (2) Strengthen attention to information-retrieving abilities
- (3) Strengthen self-control and meta-cognitive learning strategies
- (4) Reduce heavy study load and long learning hours for students
- (5) Persist in and improve in-service training and teacher professional development
- (6) Persist in promoting quality in weak schools and poor areas
- (7) Find ways, time and space for the development of students' personal potential and talents
- (8) Establish a new concept of evaluation and a school monitoring system with multi-dimensioned criteria.



Thank you !

mxzhang@shnu.edu.cn

