

# PISA in Korea

**Mee-Kyeong Lee**  
**Research Fellow**

**Korea Institute of Curriculum & Evaluation (KICE)**

# Outline

- **Importance of the PISA Results**
- **PISA Results for Korea**
- **Perceptions of PISA Participation**
- **Major Audiences for PISA Data**
- **How the PISA Data are Used**

# Importance of the PISA Results

- **PISA 2000: little interest from either the public or the policy makers**
- **PISA 2003 : extensive media coverage and attention from the public due to the highest achievement in the Problem Solving area**
- **PISA 2006: relatively low interest compared to PISA 2003, but the public showed a growing interest in science education**

# Importance of the PISA Results

- **The PISA 2003 results provided an excellent opportunity to convince the Korean people of the quality of Korean public schools and students.**
- **Since PISA 2003, policy makers have tried to reflect the implications of the PISA results in policy development.**
- **Decline in science achievement in PISA 2006 influenced the increase in the instructional hours of science.**
- **Many efforts exist to find implications of the PISA results to improve Korean education at the national level; little effort is being made at the school and teacher levels.**

# Trends in Reading

PISA 2000		PISA 2003		PISA 2006	
Country	Means	Country	Means	Country	Means
Finland	546	Finland	543	<b>Korea</b>	<b>556</b>
Canada	534	<b>Korea</b>	<b>534</b>	Finland	547
New Zealand	529	Canada	528	Hong Kong-China	536
Australia	528	.	.	.	.
Ireland	527	.	.	.	.
<b>Korea</b>	<b>525</b>	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.

# Why is Achievement in Reading Improving?

## ■ Since PISA 2003:

- The new national curriculum placed more emphasis on critical and creative thinking skills through reading and writing.
- Reading assessment became more focused on thinking ability.
- The university entrance system changed by introducing essay tests that assessed both writing skills and logical thinking abilities.

# Trends in Mathematics

PISA 2000		PISA 2003		PISA 2006	
Country	Means	Country	Means	Country	Means
Japan	557	Hong Kong-China	550	Chinese Taipei	549
<b>Korea</b>	<b>547</b>	Finland	544	Finland	548
New Zealand	537	<b>Korea</b>	<b>542</b>	Hong Kong-China	547
.	.	.	.	<b>Korea</b>	<b>547</b>
.	.	.	.	Netherlands	531
.	.	.	.	.	.
.	.	.	.	.	.

# Trends in Science

PISA 2000		PISA 2003		PISA 2006	
Country	Means	Country	Means	Country	Means
<b>Korea</b>	<b>552</b>	Finland	548	Finland	563
Japan	550	Japan	548	Hon Kong-China	542
.	.	Hong Kong-China	539	Canada	534
.	.	<b>Korea</b>	<b>538</b>	Chinese Taipei	532
.	.	.	.	Estonia	531
.	.	.	.	Japan	531
.	.	.	.	New Zealand	530
		.	.	Australia	527
		.	.	Netherlands	525
				Liechtenstein	522
				<b>Korea</b>	<b>522</b>
				.	

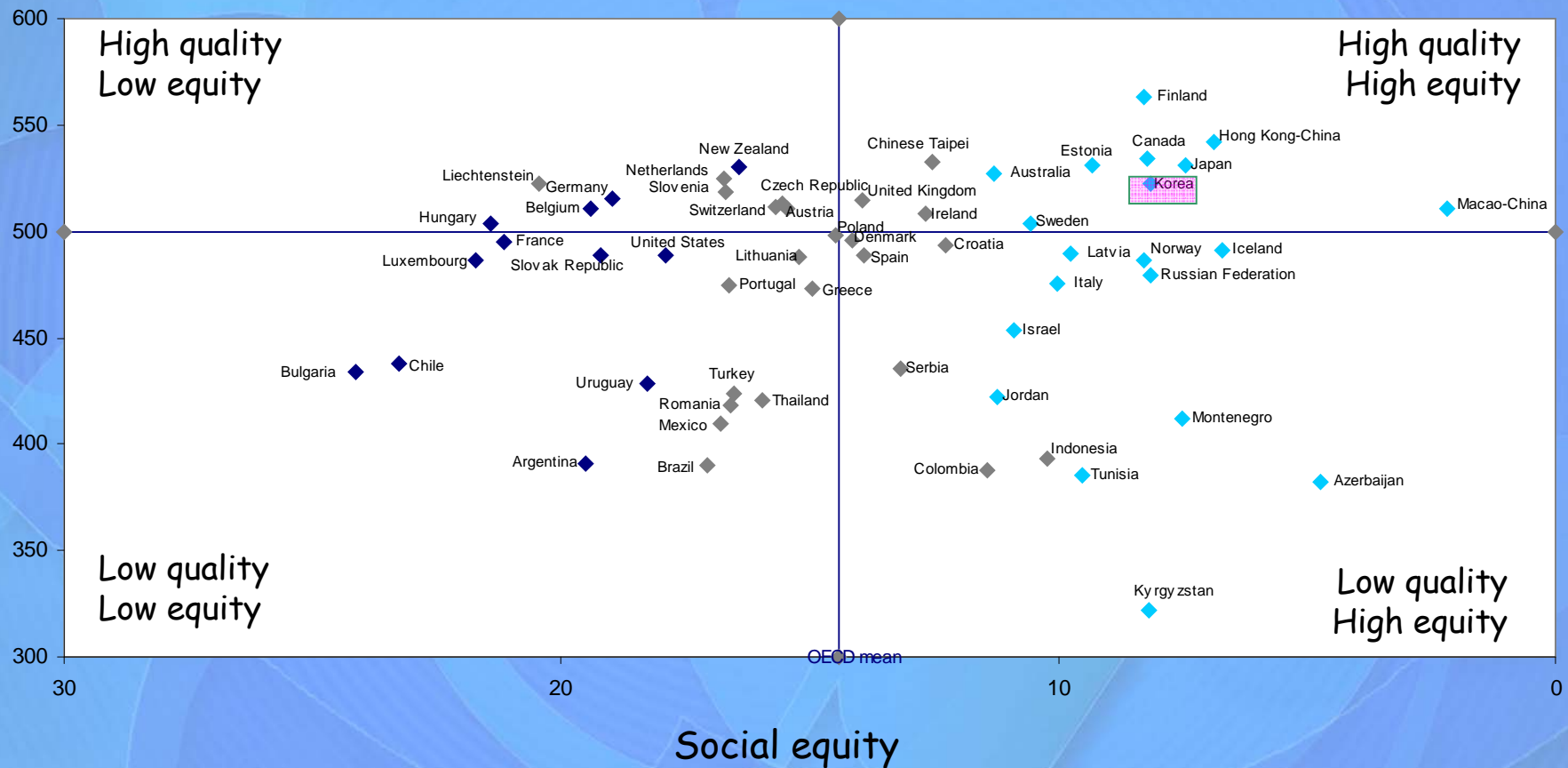
# Why is Achievement in Science Declining?

- **Science and Technology professions have become less attractive to Korean students.**
- **Since PISA 2003:**
  - **The instructional time in science was reduced an average of 45 minutes a week for grades 4 - 7 and 10.**
  - **Science subjects became optional for grades 11 and 12.**
  - **The university entrance system also changed: Students do not need to take science exams, although they will continue their studies in areas related to science at the university level.**

# PISA Results for Korea

- **Attitudes toward each domain have been relatively low.**
- **Student performance in each domain has been high, and at the same time the impact of economic, social and cultural status on student performance has been below OECD average.**

# Equity in Science Literacy (PISA 2006)



Source: OECD(2006) PISA 2006 Volume 1, figure 4.10

# Reasons Behind the High Achievement

## ■ Quality of Teachers

- Korean teachers are generally outstanding.
- Educational authorities provide a variety of professional development programs.

## ■ National Curriculum

- The Korean national curriculum provides higher standards, places priority on raising abilities to apply knowledge and skills as well as on knowledge itself.

## ■ Culture

- Koreans strongly value educational attainment.
- Korean students are relatively serious about tests, compared to students in other countries.

# Perceptions of PISA Participation

Response rates		
PISA Cycles	School	Student
PISA 2000	100%	98.84%
PISA 2003	100%	98.81%
PISA 2006	99.89%	99.04%

# Perceptions of PISA Participation

- **As there is no competitive edge, schools and teachers are not interested in PISA, though they have a cooperative attitude towards participation.**
- **Most schools understand the purposes of PISA; some teachers encourage students to do their best on the PISA tests.**
- **This cooperative environment is slowly changing.**
- **Metropolitan and provincial offices play a major role in encouraging schools to participate in PISA.**

# Major Audiences for PISA Data

- **Policy makers, educators and researchers.**
- **Schools and teachers are not major audiences yet.**
  - **PISA results have not been provided at school levels.**
  - **Too few efforts exist to use PISA results to improve teaching at the national level.**

# How the PISA Data are Used

## ■ By policy makers:

- To identify the strengths and weaknesses of the Korean educational system
- To develop new policies and support the current policies
- To convince people of the high quality of the public educational system
- Policy makers are mainly interested in quality and equity issues and school effects.

# How the PISA Data are Used

- **By educators and researchers**
  - **To identify the strengths and weaknesses of teaching and learning**
  - **To identify the factors that affect students' achievements**
  - **To find ways to improve teaching and learning**
  - **To develop a more effective curriculum**
  - **Implemented research topics include: school effects, gender differences, relationship between attitudes and achievement, factors affecting achievement and etc.**

**Thank you !**