Programme for International Student Assessment

What works? How to improve educational outcomes based on the evidence from OECD studies such as PISA

The yardstick for success is no longer improvement by national standards alone but the best performing education systems

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PISA 2009 in brief

Over half a million students...

- representing 28 million 15-year-olds in 74^{*} countries/economies
- ... took an internationally agreed 2-hour test...
 - Goes beyond testing whether students can reproduce what they were taught...
 - ... to assess students' capacity to extrapolate from what they know and creatively apply their knowledge in novel situations

. and responded to questions on...

 their personal background, their schools and their engagement with learning and school

Parents, principals and system leaders provided data on...

 school policies, practices, resources and institutional factors that help explain performance differences.



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Data for Costa Rica, Georgia, India, Malaysia, Malta, Mauritius, Venezuela and Vietnam will be published in December 2011

High reading performance

Average performance of 15-year-olds in reading - extrapolate and apply

Singapore New Zealand Japan Australia

Belgium Poland, Switzerland United States Germany, Sweden France, Ireland Hungary, United Kingdom

Macao-China

Slovenia

Slovak Republic, Czech Republic Luxembourg, Israel Austria

Dubai (UAE)

Low readi

Shanghai-China

Korea Finland Hong Kong-China

Canada

52<mark>0.000</mark>

Netherlands Norway , Estonia Lechtenstein Chinese Taipei Portugal Italy Latvia Greece Spain Croatia

Turkey

Russian Federation

"Chitecountries perform below this line of performance Serbia



PISA framme for ssessment

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High average performance High average performance 5 Korea Hong Kong-Ching social equity Large socio-economic disparities Singapore Canada New Zealand Japan Australia Netherlands Belgium Norway ,Estonia Poland, Switzerland iechtenstein Germany, Swe Socially equitable Strong socio-Chinese Taipei, Denmark economic impact on Hungary, distribution of learning Portuaal student performance opportunities Macao-China Slovenia 1099n Slovak Republic, Czech Republic Croatia Israel Luxembourg Austria Lithuania Turkey Dubai (UAE) ⁴Russian Federation Chile Low average performance – Serbia High social equity Low reading performance

High reading performance







Change in variation and score point change in reading



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Trends in reading performance



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What works? A PISA perspective

What does it all mean?

A commitment to education and the belief that competencies can be learned and therefore all children can achieve

- Universal educational standards and personalisation as the approach to heterogeneity in the student body...
- ... as opposed to a belief that students have different destinations to be met with different expectations, and selection/stratification as the approach to heterogeneity
- Clear articulation who is responsible for ensuring student success and to whom

Resources where they yield most Incentives and accountability at



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Capacity at the point of delivery

- Attracting, developing and retaining high quality teachers and school leaders and a work organisation in which they can use their potential
- Instructional leadership and human resource management in schools
- Keeping teaching an attractive profession
- System-wide career development



A learn

syster



Incentives, accountability, knowledge management

- Aligned incentive structures
 - For students
 - How gateways affect the strength, direction, clarity and nature of the incentives operating on students at each stage of their education
 - Degree to which students have incentives to take tough courses and study hard
 - Opportunity costs for staying in school and performing well
 - For teachers
 - Make innovations in pedagogy and/or organisation
 - Improve their own performance and the performance of their colleagues
 - Pursue professional development opportunities that lead to stronger pedagogical practices
- A balance between vertical and lateral accountability
- Effective instruments to manage and share knowledge and spread innovation communication within the system and with stakeholders around it
- A capable centre with authority and legitimacy to act





Variability in student performance between and within schools







- An outward orientation of the system to keep the system learning, international benchmarks as the 'eyes' and 'ears' of the system
- Recognising challenges and potential future threats to current success, learning from them, designing responses and implementing these

Resources

where they

yield most

Capacity at point of delivery

Incentives

and

accountability

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Coherence of policies and practices

- Alignment of policies across all aspects of the system
- Coherence of policies over sustained periods of time
- Consistency of implementation
- Fidelity of implementation (without excessive control)

A learning

system



Capacity at point of delivery

Resources where they yield most

education systems

Incentives and accountability



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School performance and socio-economic background What works? A PISA perspective United Kingdom Student performance and students' socio-economic background within schools Private school School performance and schools' socio-economic background Public school in rural area Public school in urban area Score 700 00 g 493 PISA 200 0 2 -2 -1 Disadvantage PISA Index of socio-economic background Advantage

School performance and socio-economic background United Kingdom

Student performance and students' socio-economic background within schools



- Private school
- Public school in rural area
- Public school in urban area





ICT and factors that make a difference



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Gender Gap in Reading (PISA 2009, girls - boys)



Differences between boys and girls compared with print reading



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Digital reading can be a lever to reduce the gender gap

- The gender gap in digital reading is much smaller than in print reading, and relates to differences in navigation skills between boys and girls
- Reading more and reading with enjoyment promotes better reading, and better reading fosters stronger engagement.





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Digital Reading Performance and computer use at home

Difference in digital reading scores (use - no use)

Difference in digital reading scores, after accounting for socio-economic background of students (use - no use)





What works? A PISA perspective

Digital Reading Performance and computer use at school

Difference in digital reading scores (use - no use)

Difference in digital reading scores, after accounting for socio-economic background of students and schools (use - no use)



Computer use at home for leisure and digital reading performance - Japan

---- Students with disadvantaged socio-economic background

-----Students with advantaged socio-economic background



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Computer use at home for leisure and digital reading performance - Chile

----Students with disadvantaged socio-economic background

Students with advantaged socio-economic background



What works? A PISA perspective 🔛

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ICT use at school and digital reading performance





The role of digital resources

ICT use at home for leisure is - up to a point positively related to performance, navigation skills and self-confidence in completing high-level ICT tasks

 Parents and teachers need to encourage students to use computers so that they can improve their navigation skills but also provide guidance on balancing time spent using computers with time for other activities

Find out more about PISA at...

- OECD <u>www.pisa.oecd.org</u>
 - All national and international publications
 - The complete micro-level database



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