



Learning Outcomes

- To reflect on current understanding of PISA
- To gain an insight into the PISA survey.
- To increase awareness of how Wales performed in 2015.
- To gain an awareness of the types of assessment utilised within PISA.
- To reflect on the place of PISA within Wales



What do you already know about PISA?



Quiz Question 1

- What does the acronym PISA stand for?
 - a) Plan for International Student Assessment
 - b) Programme for International Student Assessment
 - c) Programme for International Schools Assessment

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What is PISA?

- Programme for International Student Assessment
- Developed jointly by member countries of the Organisation for Economic Co-operation and Development (OECD)
- One of the world's biggest international education surveys, involving schools and students in over 60 countries.
- Run in the UK by the National Foundation for Educational Research (NFER).

What is the OECD?

- Established 1961
- Based in Paris
- Membership: 34 countries



OECD Headquarters Paris



© OECD

OECD Members



OECD's Mission

"The mission of the Organisation for Economic Co-operation and Development (OECD) is to promote policies that will improve the economic and social well-being of people around the world."

<http://www.oecd.org>

The OECD and Education

- Education is a big part of OECD's mission
- OECD publishes many reports on education

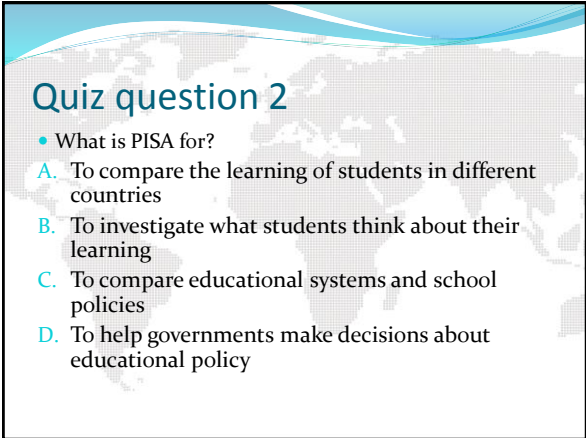
The OECD and Education

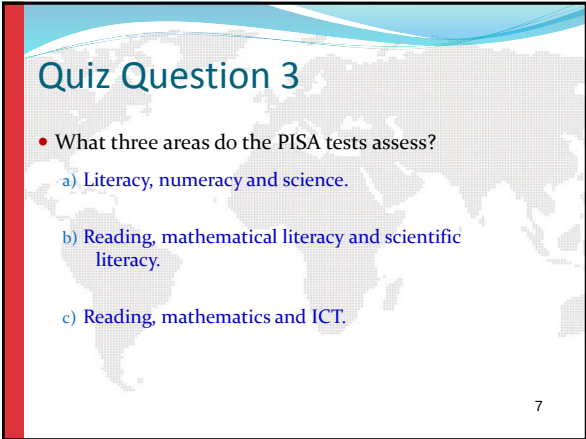


The OECD and Education

PISA is one of OECD's most important educational surveys.







What happens in the survey?

- PISA takes place every 3 years – the first one was in 2000.
- In each survey there is one main subject.
- In the 2015 PISA survey, the main focus was science
- Reading maths and problem solving were the minor areas of assessment.
- PISA 2015 had optional assessment of pupils financial literacy

What else is involved?

- Students answer a questionnaire which has questions about themselves, their home and about their school and learning experiences.
- There is also a school questionnaire which asks about aspects of school policy and organisation.
- 2018 will include a Global Competencies test designed to test how well young people can work alongside different cultures

Quiz Question 4

- What age are the learners when they participate in PISA tests?

a) 15

b) 17

c) 12

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Quiz Question 5

- How can schools use the data from the PISA tests?
 - a) To prepare the learners for the global knowledge economy of the 21st century.
 - b) To reveal common patterns among high performing schools.
 - c) As a benchmark, to show what is truly possible in education.

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How many countries take part?

- **PISA 2000** 43 countries
- **PISA 2003** 41 countries
- **PISA 2006** 57 countries
- **PISA 2009** 65 countries (and a further 10 took part in 2010)
- **PISA 2012** 67 countries
- **PISA 2015** 72 countries & economies

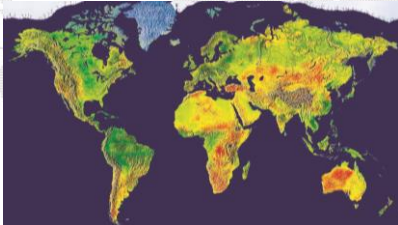
The PISA computer based tests

- 540,000 students participated
- The tests take 2 hours.
- Multiple choice and student responses.
- About 810 minutes of test items devised with different students talking different combinations of test items
- There is no special study or revision needed.

The PISA Questionnaire

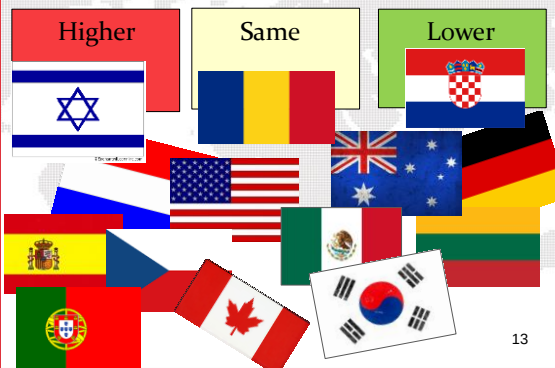
- The questionnaire takes about half an hour.
- All answers are confidential – the school will not see them.
- The questionnaire asks for some information on homes and families.
- It also asks about attitudes to maths and maths activities.

How well did
Wales do in PISA
2015?



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Other countries compared to Wales



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Reading

Higher, lower, the same.

Choose from

- Australia,
- America,
- Spain,
- Canada
- Mexico,
- Romania,
- South Korea

Reading: comparison with Wales

Higher	Same	Lower
	 	

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Mathematics

Higher, lower, the same.

Choose from

- Australia,
- America,
- Spain,
- Portugal
- South Korea,
- Czech Republic

Mathematics: comparison with Wales

Higher



Same




Lower



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Science

Higher, lower, the same.

Choose from

- Australia,
- USA ,
- Spain,
- South Korea,
- Germany
- Netherlands
- Mexico

Science: comparison with Wales

Higher



Same




Lower



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Key findings for Wales

- Performance of pupils in Wales was significantly below the OECD average in mathematics, science and reading.
- Performance of pupils in Wales was also significantly below that of their counterparts in England, Scotland and Northern Ireland.
- Wales also has fewer high performing and more low performing students in science, reading and maths.

Key findings for Wales

- Wales and Northern Ireland have fewer top performing science students with just 5% gaining that label in both countries compared with 12% in England and 8% in Scotland.
- Top performers are deemed to be able to "creatively and autonomously apply scientific knowledge and skills to a variety of situations."
- 21% of students tested in Wales cannot read well enough to "participate effectively and productively in life" according to the report, compared to 18% in England and Scotland and 15% in Northern Ireland.

- Across the OECD 8% of students are ranked as top readers compared with 10% in England, 6% in Scotland and just 4% in Wales and Northern Ireland.
- Stark results show just 5% of 15 year-olds in Wales were rated 'top performers' in maths in the tests taken last year, compared with 35% in Singapore and 11% in England.
- Advantaged pupils in Wales don't overachieve in the way they do in other parts of the world and the UK

Key findings for UK

- The United Kingdom performs around the average in mathematics and reading and above average in science, compared with the 72 OECD countries & economies that participated in the 2015 PISA assessment of 15-year-olds.
- The United Kingdom has a higher GDP and spends more on education than the average in OECD countries, as well as higher levels of tertiary education and a lower share of the most socio-economically deprived groups. However, these comparative advantages do not have a clear relationship with educational outcomes.

Wales' performance 2015

- In 2012 PISA test in maths, Wales scored 468 points. In 2015 we scored 478 compared with 491 in Scotland, 493 in England and 493 in Northern Ireland. **OECD average 490**
- In 2012 PISA test in reading Wales scored 480 points. In 2015 we scored 477, but Scotland scored 493 points, England scored 500 and Northern Ireland 497. **OECD average 493**
- In 2012 PISA science scores, Wales scored 491. In 2015 we scored 485 compared with England 512, Scotland 497, and 500 in Northern Ireland. **OECD average 493**

Wales' performance 2015

- Reading – up 1 place to 40th
- Maths – up 4 places to 39th
- Science – no change 35th
- UK ranks 15th as a whole
- 3,500 pupils
- 140 secondary schools including 24 Welsh medium schools

<http://www.walesonline.co.uk/news/education/full-pisa-results-2016-show-12278551>

Top performers

- 1 Singapore
- 2 Japan
- 3 Estonia
- 4 Chinese Taipei
- 5 Finland
- 6 Macao (China)
- 7 Canada
- 8 Vietnam
- 9 Hong Kong
- 10 Korea
- 11 New Zealand
- 12 Slovenia
- 13 Australia

And the worst..

- 67 Lebanon
- 68 Tunisia
- 69 Macedonia
- 70 Kosovo
- 71 Algeria
- 72 Dominican Republic

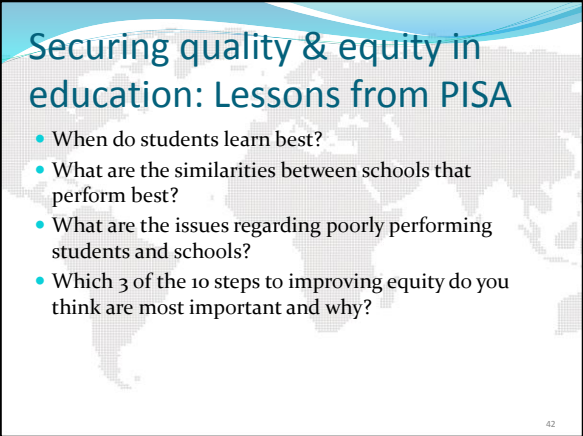
- Boys outperform girls in science although in many countries the gap is small. However in 33 countries the share of top performers in science is larger among boys than girls. Only in Finland are girls more likely to be top performers than boys.. Girls outperform boys in reading, although the gap is reducing.
- In 2012 students in the United Kingdom were generally positive about their experiences at school and about the climate in their classrooms; 2015 results not published yet.

<http://www.bbc.co.uk/news/business-38145491>

- 10 ways to be the cleverest country



- <https://www.youtube.com/watch?v=CV5zOSHAhew>
- PISA 2015 the headlines



Securing quality & equity in education: Lessons from PISA

- When do students learn best?
- What are the similarities between schools that perform best?
- What are the issues regarding poorly performing students and schools?
- Which 3 of the 10 steps to improving equity do you think are most important and why?



International Comparisons

- It is difficult to draw direct parallels
- Some countries have selective education, some don't.
- Some like Germany practice 'grade retention' – hold back pupils to repeat the year.
- PISA favours countries that cover a narrow curriculum and penalise those who roam broadly.

Further information

- <https://www.nfer.ac.uk/publications/99960>
- Key insights from PISA 2015 for the UK nations

References

- Nfer (2015) Key insights from PISA 2015 for the UK nations. Available at: <https://www.nfer.ac.uk/publications/99960> Accessed on 4/1/17
- OECD (2015) PISA 2015 Results in Focus. Available at: <https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf> Accessed on 4/1/17
- Wightwick A (2016) Full Pisa results 2016 show Wales' schools are still adrift of the rest of the UK. Available at: <http://www.walesonline.co.uk/news/education/full-pisa-results-2016-show-12278551> Accessed on 4/1/17

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- Securing quality and equity in education: Lessons from PISA