

Preparing schools for PISA 2018

As PISA 2018 gets under way, the NFER's **Rebecca Wheeler** looks at how it works, what it tells us, and explains why it's important for schools to take part

The Programme for International Student Assessment (PISA) is the world's biggest international education study, involving schools and pupils in more than 80 countries. Co-ordinated by the Organisation for Economic Co-operation and Development (OECD), PISA helps us to understand how well pupils can apply knowledge and skills in reading, mathematics and science in everyday life to analyse, reason and communicate effectively. It also collects valuable information on pupils' attitudes and motivations to help understand how they contribute to pupil performance.

Findings from the study will provide high-quality, internationally comparative data to inform education policy in the UK and across the world. This can be used to improve teaching and learning in reading, science and maths and to provide valuable insights into background factors such as pupils' attitudes, school resources, teachers' practices and qualifications – and how they relate to pupil achievement. PISA 2018 will particularly focus on reading skills and attitudes towards reading.

There continues to be more difference in education outcomes within a country than between countries, and within schools than between schools

Pupils aged 9 and 10 in England and Northern Ireland took part in another international study focusing on reading in 2016 – the Progress in International Reading Literacy Study (PIRLS).

The PIRLS results, published in December 2017, showed that on average children in England had improved their reading scores compared with the previous round of the study, and England's lower performing children, typically boys and those from disadvantaged backgrounds, had improved their scores the most. Higher PIRLS reading scores were

Five benefits of the PISA study

- Tells policy-makers, schools and researchers more about how well pupils can apply the skills and knowledge learned in school to real-life situations, and how their skills relate to their experiences in school and their attitudes.
- Provides more information about the relationship between disadvantage and pupil achievement, as well as the influence of other pupil characteristics.
- Provides insights for teachers into how to support the development of key skills.
- Gives participating schools the opportunity to tell us about their experiences and to be part of a study that gives governments independent information and directly influences policy-making in the UK and around the world.
- Participating schools receive a report, available only to each individual school, about their pupils, including comparative national information, which schools find useful for self-evaluation.

also associated with higher performance in the phonics check at the end of year 1 (DfE, 2017). PISA 2018 will make an important contribution to the debate, providing a baseline before this same cohort of children reach secondary school and we can examine whether the observed improvement in reading outcomes persists.

Pupils in Northern Ireland maintained their high level of performance in PIRLS with only two other participating countries scoring significantly higher. More than one-fifth of pupils in Northern Ireland achieved the "advanced international benchmark" in reading, which was the third highest percentage internationally and a significant increase since 2011 (Sizmur et al, 2017). These results provide important evidence on the strength of education in Northern Ireland, including its primary curriculum with its emphasis on cross-curricular skills.

PISA 2018

The National Foundation for Educational Research (NFER) is the PISA 2018 national research centre for the UK, conducting the survey on behalf of the Department for Education (DfE) (England), the Department of Education (DE) (Northern Ireland), the Welsh government and Scottish government. So, how can we be sure that data collected gives us a true picture of what 15-year-olds can do in the UK, and is comparable with other countries?

To ensure good quality data is collected, strict international quality standards are applied at all stages of the study. For instance, we can only invite schools to take part that have been randomly sampled by international researchers to be nationally representative, meaning that each school represents other schools with similar characteristics. This in turn means we require high participation rates from these schools to ensure the data we collect is a fair reflection of the country as a whole and can be used to make comparisons with other countries.

The assessments of reading, maths and science, and the questionnaires which pupils and schools complete also go through a rigorous process where they are adapted to the UK context by NFER researchers and all changes are agreed internationally to ensure that the materials used in the UK are comparable with those used in other countries.

What did PISA 2015 tell us?

PISA 2015 found that there continues to be more difference in education outcomes within a country than between countries, and within schools than between schools. Pupils with the highest attainment in the UK have results as good as the best in the world, but fewer pupils in the UK reach this level compared with the highest performing countries.

So, what did we learn about the UK nations from the last round of PISA in 2015?

- Science: England had the highest average science score of any UK country. Average science scores have dropped significantly in Scotland and Wales since 2006, while Northern Ireland has remained stable.
- Maths: England, Northern Ireland and Scotland had similar average maths achievement to the OECD average. Maths achievement has remained stable for all countries since 2012.
- Reading: There were no significant differences in reading achievement scores for England, Northern Ireland and Scotland. There was no significant change to reading achievement scores for any UK country since 2006.

Disadvantaged pupils

PISA examines the impact socio-economic status has on performance. In PISA 2015, in the UK, England had the largest gap between the average performance of pupils with high and low socio-economic status, and Wales had the smallest.

The relationship between socio-economic status and outcomes was also weakest in Wales, meaning differences between high and low performing pupils can only be weakly explained by differences in the socio-economic status of pupils – there are other factors also at play.

In England, a greater proportion of pupils with low socio-economic status had high achievement scores, than Northern Ireland, Wales and Scotland. These pupils are called "resilient" by the OECD.

What does participation mean?

As schools selected to participate in PISA 2018 start to receive information on taking part in the study, what does participation mean for them?

Schools are supported throughout their participation by the NFER PISA team and their NFER PISA administrators. PISA is a computer-based assessment, so we work closely with schools to ensure that their computers are ready to run the study on their agreed study day.

For pupils, the study comprises a two-hour assessment to answer multiple-choice and open-ended

questions on reading, science and mathematics, and up to 45 minutes to complete a questionnaire about themselves and their school. Pupils do not need to prepare in advance.

A member of the senior leadership team of each school is also asked to complete a questionnaire asking about school climate and resources.

All marking is conducted by NFER, and schools receive their own school report when the results for the UK and other participating countries are published in December 2019.

It is the contributions of pupils and teachers that make PISA a success, and we are very grateful to all the pupils and teachers who take part. If you are invited to participate, thank you for all your efforts in ensuring that the study is a success in the UK. **SecEd**

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Further information

To find out more about the study, visit the NFER's PISA webpages at www.nfer.ac.uk/pisa

References

- *Progress in International Reading Literacy Study (PIRLS): National Report for England*, Department for Education, 2017: <http://bit.ly/2HdE7r6>
- *PIRLS 2016 in Northern Ireland: Reading Achievement*, Sizmur, Ager, Classick & Lynn (NFER), 2017: www.nfer.ac.uk/publications/PIRR01/PIRR01.pdf

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