Press release
Launch of ***Reading Literacy in Ireland in PISA 2018: Performance, Policy and Practice***
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Educational Research Centre (28 04 2022).

The full report can be found at: https://www.erc.ie/wp-content/uploads/2022/04/20-ERC-Reading-Literacy-PISA-2018-Report_A4_Digital.pdf

Today, the Educational Research Centre (ERC) publishes a new report, *Reading Literacy in Ireland in PISA 2018: Performance, Policy and Practice*. The publication of the report coincides with an upcoming review of Ireland's 10-year Literacy and Numeracy Strategy – an opportune time to review progress under the 2011-2020 strategy, and look ahead to the new one.

PISA (the Programme for International Student Assessment) is a three-yearly OECD study of 15-year-olds. It assesses knowledge and skills in reading, mathematics and science and also gathers information on students' attitudes, beliefs, and home and school contexts.

PISA 2018, which was administered on laptops, allows for a detailed comparison of student achievements in and contexts of reading literacy with 2009, which involved a paper-based assessment. PISA 2018 reading literacy included both 'trend' material (previously administered in earlier cycles) and new material, which reflects newer digital texts, knowledge and skills. Comparisons of achievement in 2009 and 2018 are possible due to the inclusion of the trend material in both assessments.

The overall performance of students in Ireland on reading literacy in PISA 2018 was strong: Ireland's mean reading score of 518 points was significantly higher than the OECD average. Just three entities achieved significantly higher mean scores (Beijing-Shanghai-Jiangsu-Zhejiang (China), Singapore, and Macao (China)). While three OECD member countries ranked higher than Ireland (Estonia, Canada and Finland), none performed at a significantly higher level. Ireland's average reading performance in 2018 represents a strong improvement over PISA 2009, when reading literacy was also a major assessment domain in PISA, and Ireland's mean score (496) was not significantly different from the OECD average.

While the overall results of PISA 2018 point to the success of the National Literacy and Numeracy Strategy, introduced in 2011, it should be noted that a number of factors – both technical and operational – were associated with Ireland's lower than expected performance in 2009. For example, a review of the PISA 2009 results indicated that the reading assessment material that was used in 2009 to measure trend may have disadvantaged Irish students more so than on average internationally, resulting in a downwardly-biased score.

In Ireland, there were relatively few students in PISA 2018 with very low achievement in reading literacy. Just under one in eight students (11.8%) performed at the lowest levels of

proficiency on overall reading literacy (i.e., below Level 2), compared to 22.6% on average across OECD countries. Ireland also had more higher-achieving students, with 12.1% performing at the highest proficiency levels (Levels 5-6), compared with an OECD average of 8.7%.

The 2011 National Literacy and Numeracy Strategy set out targets for 2020, including a halving of the proportion performing below Level 2 (from 17.2% in 2009 to 8.5%). Since 11.8% of students in Ireland performed below Level 2 in PISA 2018 (the last PISA assessment prior to 2020), this target has not been met, though it might be noted that no country in PISA 2018 had fewer than 11% of students performing below Level 2.

Although the 2011 Literacy and Numeracy Strategy did not set a target for the proportion of very high achievers (Levels 5-6) to be in the system by 2020, the Interim Strategy Report in 2017 set a target of 12%. The proportion of students performing at Levels 5-6 in reading in Ireland increased from 7.0% in 2009 to 12.1% in 2018, indicating that the target has been achieved. Based on the performance of some other countries, there appears to be scope for further improvement. Countries with greater proportions of students performing at Levels 5-6 in 2018 include Singapore (25.8%), Canada (15%), Finland (15.2%) and Estonia (13.9%).

Female students in Ireland (and internationally) have consistently outperformed males on reading literacy across PISA cycles. It is a matter of concern that, in 2018, a relatively high proportion of male students (15.1%) performed below Level 2, compared with 8.5% of females. This suggests a need to focus on developing the reading literacy skills of underperforming male students, in particular.

In Ireland, in PISA 2018, 43.9% of male students and 60.6% of females reported that they read for enjoyment on a daily basis. These are below the targets outlined in the 2017 Interim Strategy Review (60% for males, and 70% for females), and are a little lower than in 2009 (52.5% of males, and 63.3% of females), indicating a need to engage young people in more reading for enjoyment. This represents a significant challenge, given the transition of many young people to digital media. According to UK research, there needs to be collaboration among teachers, parents and students to address factors associated with disengagement in reading, such as a perceived lack of time, and a view that reading is too effortful and 'uncool'.

While PISA 2018 indicated that 11.8% of students in Ireland were lower achievers in reading, a measure of self-perception of reading ability, which is positively associated with reading, found that 20% of students in Ireland deemed themselves to be poor readers. Separately, 25% indicated that they always had difficulty with reading. These findings point to a need to adopt a broader perspective on addressing reading difficulties, including a focus on attitudes and perceptions when identifying the needs of students, in additional to actual performance.

There is evidence, from a national teacher survey conducted as part of PISA 2018 in Ireland, that the Literacy and Numeracy Strategy has resulted in an increased emphasis on literacy development in schools, both in language classes, and across the curriculum.

Eighty-five percent of English teachers in Ireland strongly agreed or agreed that there is a culture of sharing best practice on how to improve students' literacy at school level, while over three-quarters expressed similar levels of agreement with the view that the teaching staff in their school took an active and integrated approach to addressing the literacy needs of students. These proportions, alongside the reports of principal teachers on the engagement of school staff in literacy development, bode well for the future.

It is a matter of concern, however, that 46% of English teachers reported that they did not feel that they had the skills required to teach digital literacy skills in English. The teaching and

learning of digital literacy is an area that should be prioritised under the new Literacy, Numeracy and Digital Literacy Strategy.

This new report makes recommendations to the Department of Education under eight headings: overall performance; gender differences; English language learners; engagement in reading; development of reading skills and strategies; target setting and PISA; supporting literacy development across the curriculum; and teaching English at Junior Cycle.

As yet, the effects of COVID-19 on reading literacy performance in Ireland are unclear, though the evidence from other countries suggests some loss of skills, especially among disadvantaged students. It is likely that many of the recommendations for further progress in our report will need to be implemented at system, school and classroom levels, to ensure that, at a minimum, students in Ireland do not miss out on essential reading literacy skills.

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Additional Information on PISA

What is PISA?

- The programme for International Student Assessment (PISA) is a project of the Organisation for Economic Co-operation and Development (OECD) that aims to measure how well students, at age, 15, are prepared to meet the challenges they may encounter in future life, including education. PISA takes place every three years and assesses students in the three domains of Reading, Mathematics and Science.

- In 2018, the PISA assessments were administered in all 37 OECD countries and an additional 42 partner countries/economies participated in the main strand of PISA 2018, i.e. the tests of reading literacy, mathematics and science. Of these, students in 70 countries/economies including Ireland completed the tests on computer, while nine (all non-OECD-member countries) completed the paper-based versions.

- PISA is based on a representative sample of 15-year-old students in each of the participating countries. Over 600,000 students around the world took part in PISA. In 2018, 157 post-primary schools in Ireland took part. All of the Irish schools selected for PISA 2018 participated in the assessment. This exceeded the OECD requirement of 85% participation at school level. After exemptions, refusals and absences were taken into account, 5,577 Irish students completed the assessment in Ireland, giving a student response rate of 86.5%. This exceeded the required 80.0%.

- In Ireland, Third Year students account for 61.6% of students in PISA 2018; Transition Year students for 27.9%; Fifth Year students for 8.5%; and First/Second Year students for 1.8%.

- When PISA was established in 2000, the mean (average) score on reading literacy was set at 500 with a standard deviation of 100. This means that the tests in each cycle of PISA can be compared against the results in 2000 and to the results in each subsequent cycle.

- More information on PISA: https://www.oecd.org/pisa/ and https://www.erc.ie/studies/pisa/

How is PISA administered?

- PISA is steered by member governments through the OECD Secretariat, on the basis of shared, policy-driven interests. PISA is managed by a consortium of institutions. In Ireland, PISA is implemented by the Educational Research Centre (ERC) on behalf of the Department of Education (DE).

- In Ireland, PISA 2018 was administered in schools by inspectors from the DE, alongside retired inspectors and principals and representatives of the ERC.

- For the main study, a representative sample of 157 schools in Ireland was selected to participate in PISA 2018 by the international PISA consortium. In order to obtain nationally representative samples in PISA, each country provides information on the characteristics of the post-primary education that are structurally,demographically and academically relevant. Naturally, these vary from country to country.

- In Ireland, schools were grouped by enrolment size and sector (secondary, ETB/vocational, community/ comprehensive). Within each of the resulting nine groups, schools were ordered by the percentage of 15-year old female students in the school,

and socioeconomic quartile.In each selected school, up to 44 students aged 15 years (those born in 2002) were selected to participate.

What does PISA assess?

- Each cycle of PISA focuses on one 'major domain', either reading literacy, mathematical literacy or science literacy, to which the majority of testing time is devoted. The 'minor domains' provide a less detailed account of achievement.

- Reading Literacy was the major domain in PISA 2018, while the minor domains were mathematics and science. Reading Literacy was also a major domain in 2009 and 2000. Because Reading Literacy was tested more thoroughly in 2000, 2009 and 2018, the OECD believes that more accurate trend data for Reading Literacy can be established by comparing student performance in these years.

- PISA 2018 focused on reading as the major domain. It measures students' ability in:
    - Locating information
    - Understanding
    - Evaluating and reflecting

- PISA also collects contextual information through questionnaires completed by students and principals, as well as some information from national sources (such as the DES post-primary database).

- In Ireland, 2018, the questionnaires administered included:
    - the core student questionnaire
    - optional short questionnaire for students on ICT
    - optional short questionnaire for students on Educational Careers
    - optional short questionnaire for students on Well-Being.
    - a core school questionnaire for school principals or their nominee(s)
    - a parent questionnaire
    - a nationally-developed questionnaire for teachers of Junior Cycle English.

How did the test in 2018 differ from earlier PISA assessments?

- Originally, PISA was administered as a pencil and paper test. Since 2015, it has been administered on computer in a majority of participating countries, including all OECD countries.

- 70 of 79 participating countries, including Ireland, administered the assessment using a computer-based platform.

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[1] Seven schools had fewer than 44 15-year olds enrolled and all such students were selected.

- The PISA 2018 test reflects changes in our understanding of the nature of Reading Literacy. Mainly,these arise because of the changing nature of reading – for example, reading online documents, websites and social media involves using literacy skills that would not have been as common in 2009. In 2018, the materials in the Reading Literacy test included new dynamic text formats with additional functionalities, for example, multiple-texts, hyperlinks, navigation and dropdown menus.

- Alongside the development of new test content and item formats, PISA 2018 introduced adaptive testing for computer-based countries in order to improve the accuracy and fairness of the reading test. The test is adaptive to each student's ability level - students start on a common set of items, and then, at intervals, the student progresses onto items of a lower or higher difficulty, based on their previous performance.

What issues should be considered in interpreting trends over time?

- PISA is now a computer-based assessment (since 2015), and the tests in reading and science now include new item formats and an assessment mode that students in Ireland may not be familiar with.

- The number of OECD member countries continues to increase. This means that the OECD average periodically changes with the addition of new countries. In addition, B-S-J-Z (Beijing, Shanghai, Jiangsu and Zhejiang) China in 2018 differs from B-S-J-G China in 2015, as one province, Guangdong, was replaced by Zhejiang.

- Possibly related to the changing composition of the OECD itself, the OECD average has been steadily decreasing across the three domains in the most recent cycles of PISA.

- Students participating in PISA 2018 in Ireland, who were drawn from a range of grade levels between First and Fifth years (with a majority in Third year), had studied or were studying a mix of subjects based on Junior Certificate Syllabi published prior to 2012, and several subjects under the new Junior Cycle specifications since phase one changes were introduced in 2014. The English specification was introduced in 2014 and thus all participating students inPISA 2018 studied under the new specification.

Additional research referenced in the Press Release

An overview of the research conducted to investigate the change in the performance of students in Ireland in PISA 2009 is presented in the report, on pages 7-10.

Strategies to engage students in more reading for enjoyment are discussed on pages 139-141.