PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

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EXECUTIVE SUMMARY

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The *Progress in International Reading Literacy Study* (PIRLS) assesses the reading literacy of primary school pupils in participating countries worldwide. Ireland has participated in three cycles of PIRLS to date—in 2011, 2016, and 2021—with the Educational Research Centre (ERC) administering the study on behalf of the Department of Education.

This report draws on data from PIRLS 2021. PIRLS was one of two large-scale assessments conducted in primary schools in Ireland in 2021, the other being the National Assessments of Mathematics and English Reading (NAMER). Together, PIRLS and NAMER data provide valuable insights about primary school pupils' achievement and experiences following the disruptions to education caused by COVID-19 within the Irish context, while findings across PIRLS countries further contextualise these outcomes on a global scale.

Findings in this report build on those reported in the PIRLS 2021 national report by Delaney et al. (2023). Readers may find it useful to also consult the international PIRLS 2021 report (Mullis et al., 2023), the PIRLS 2021 Encyclopedia (Reynolds et al., 2022), as well as the NAMER 2021 performance report (Kiniry et al., 2023) and the NAMER 2021 report on DEIS schools (Nelis & Gilleece, 2023).

Chapter 1: Overview of PIRLS 2021

This report explores the contexts for the reading achievement of the 4,663 pupils from 148 primary schools who took part in PIRLS 2021 in Ireland. It examines the reading-related experiences, attitudes, and behaviours of these pupils, along with contextual data from their parents/guardians[1], teachers, and school principals. The analysis focuses on how various pupil, home, class, teacher, and school characteristics relate to reading achievement.

About PIRLS 2021

PIRLS is a globally comparative study overseen by the International Association for the Evaluation of Educational Achievement (IEA), designed to assess reading literacy among primary school pupils. Administered every five years, PIRLS assesses reading comprehension through a test and collects contextual information through questionnaires. The 2021 cycle, involving 57 countries, was impacted considerably by the COVID-19 pandemic. Ten countries of particular comparative interest are used as "reference countries" in this report: Australia, Croatia, England, Finland, Hong Kong SAR, Lithuania, New Zealand, Northern Ireland, Poland, and Singapore.

Changes in PIRLS 2021

Initially planned as a digital assessment, PIRLS 2021 in Ireland was conducted on paper due to the disruptions caused by COVID-19. Testing was also rescheduled from spring to autumn 2021, resulting in pupils being assessed at the start of Fifth Class instead of the end of Fourth Class. These adjustments, made to address ongoing uncertainties and minimise disruption, introduced significant caveats when comparing PIRLS data across countries and previous PIRLS cycles.

1 Throughout the remainder of the report, the term "parents" is used to refer to both parents and guardians of pupils.

The PIRLS 2021 test

The PIRLS 2021 test assessed reading literacy through literary and informational texts, with items (questions) involving various comprehension processes, including retrieval, inference, interpretation, and evaluation. The test was structured into 18 booklets, each containing items of varying difficulty and format to capture a comprehensive picture of reading comprehension skills.

The PIRLS 2021 context questionnaires

In addition to assessing pupils' reading literacy, PIRLS 2021 collected extensive data through questionnaires completed by pupils, parents, teachers, and school principals. These data provided insights into pupils' demographic characteristics, attitudes, and experiences, as well as the educational contexts of their homes, classrooms, and schools. In the 2021 cycle, new questions were added to the questionnaires to capture the impact of COVID-19 on education and remote learning experiences.

Caveats in the interpretation of PIRLS 2021 data

The PIRLS 2021 cycle introduced several significant changes, including a shift towards digital testing and a new group adaptive testing approach. However, COVID-19 necessitated adjustments to testing timelines and formats for most participating countries. These modifications should be considered when interpreting the data, especially for international and trend comparisons.

Chapter 2: Policy context of PIRLS 2021 in Ireland

PIRLS 2021 took place against the backdrop of a decade of intensified literacy-focused educational policies in Ireland, including the *National Strategy: Literacy and Numeracy for Learning and Life 2011-2020* and the redevelopment of the Primary Language Curriculum (PLC). Notably, the 2017 interim review of the *National Strategy: Literacy and Numeracy for Learning and Life 2011-2020* also highlighted a greater focus on literacy outcomes in DEIS Urban schools. Although it could reasonably be expected that the literacy-learning experiences of the PIRLS 2021 cohort would have been influenced to some degree by these various policy initiatives, their experiences were also profoundly impacted by the COVID-19 pandemic, which led to school closures, remote teaching and learning, and altered classroom arrangements. To mitigate these disruptions, measures such as additional funding for digital technology, prioritisation of curriculum areas, expanded summer programmes, and the COVID Learning and Support Scheme (CLASS) were implemented. Chapter 2 discusses policy developments relating to primary-level literacy education in Ireland between 2011 and 2021, considers their potential influence on the PIRLS 2021 cohort, and sets out the key research questions addressed in this report.

National Strategy: Literacy and Numeracy for Learning and Life 2011-2020 – Developments in literacy education policy at primary level

The *National Strategy: Literacy and Numeracy for Learning and Life 2011-2020* (hereafter referred to as the *2011 National Strategy*) was developed partly in response to a decline in reading achievement among 15-year-olds in Ireland, as indicated by the Programme for International Student Assessment (PISA) 2009 results. The *2011 National Strategy* aimed to enhance literacy and numeracy outcomes across early childhood, primary, and post-primary levels and to improve attitudes among children, young people, and the general public through interventions in six key areas:

1. Resources and support for **parents and communities**:
    - Initiatives like the National Adult Literacy Agency's (NALA) website and television series, along with campaigns such as the Right to Read and the Take the First Step, aimed to raise awareness of the role of parents and communities in literacy development. However, these efforts were often fragmented and not part of a continuous, unifying information campaign.
    - Efforts to equip parents with information on supporting their children's literacy included distributing materials from NALA's *helpmykidlearn* website to early learning and care (ELC) settings. The Aistear Síolta Practice Guide and other resources were also made accessible to parents, though primarily aimed at educators.
    - Schools were encouraged to collaborate with parents, particularly by sharing reports of School Self-Evaluation (SSE) and School Improvement Plans (SIPs). However, the interim review of the *2011 National Strategy* highlighted that communication between schools and parents could be improved.
2. Professional learning for **early learning and care (ELC) educators and teachers:**
    - The ELC landscape in Ireland underwent considerable changes with the introduction of a universally available, free year of ELC in 2010, followed by an expansion to two free years from 2016. This change was accompanied by the publication of the Aistear Síolta Practice Guide and increased funding and regulatory incentives to encourage ELC educators to upskill, alongside the commencement of education-focused inspections in ELC settings from 2016.
    - Reforms were implemented in Initial Teacher Education (ITE), with primary teaching qualifications extended by a year and greater emphasis placed on literacy instruction.
    - Continuing Professional Development (CPD) was enhanced through the establishment of Literacy and Language teams within the Professional Development Service for Teachers (PDST) and the mandated incorporation of literacy in online summer courses for teachers. This resulted in a notable increase in literacy-related CPD participation by teachers, as evidenced by NAMER 2014 and PIRLS 2016.
    - The interim review of the *2011 National Strategy*, in line with the *Digital Strategy for Schools 2015-2020*, identified digital literacy as a priority area across the continuum of teacher education. Nevertheless, challenges persisted in embedding digital technologies in teaching, with many teachers reporting inadequate resources and limited confidence in integrating digital tools in their teaching.
3. Capacity-building for **school leaders:**
    - The *2011 National Strategy* emphasised the importance of school leaders' understanding of effective literacy instruction and the use of assessments to enhance learning. This was supported by professional development opportunities for school leaders and the introduction of SSE, within which literacy was a key focus.
    - While most schools had prepared SSE reports and SIPs by the midpoint of the *2011 National Strategy*, there was variability in how these documents were shared with the broader school community and how effectively SSE was implemented across schools.
4. Review and update of **curriculum** specifications:
    - From 2012, primary schools were required to increase weekly instructional time for

literacy and numeracy by over two hours, largely through the integration of skills across the curriculum. Data from NAMER 2014, Trends in International Mathematics and Science Study (TIMSS) 2015, and PIRLS 2016 indicated compliance with this requirement, though it likely resulted in reduced time for other subjects.

- A major development during this period was the full redevelopment of the primary curriculum, the first since 1999. The new PLC was introduced in phases starting in 2015, integrating literacy instruction across English and Irish and emphasising the transferability of literacy skills across languages. As the majority of the PIRLS 2021 cohort began school in autumn 2015, they should, in theory, have received literacy instruction entirely through the new PLC (under the draft specification for junior classes from Junior Infants to Second Class [2015-2016 to 2018-2019] and under the full specification from Third Class to the point of PIRLS testing at the start of Fifth Class [2019-2021]).
- The PLC introduced several key changes, including highlighting the value of *all* languages, focusing on pupils' learning outcomes rather than teachers' content objectives, offering an online "toolkit" for teachers with support materials, broadening the definition of "text" to include digital and other non-print formats, and emphasising the social and playful dimensions of literacy. However, the rollout of the PLC was disrupted by the COVID-19 pandemic, potentially impacting its implementation.

5. Targeted resources for **learners with additional needs**:
   - Within this category, the *2011 National Strategy* referenced students from disadvantaged backgrounds, non-native English speakers, students with special educational needs, and early school leavers (the latter being more relevant in the post-primary than primary context). The DEIS programme remained central to supporting schools with high levels of deprivation, with an updated model using the Pobal HP Deprivation Index introduced in 2017, to better target resources.
   - The resourcing model for English as an Additional Language (EAL) support was restructured, reducing the number of additional teachers specifically allocated to EAL while emphasising a whole-school approach to language support. This was accompanied by reforms to the allocation of special education teaching resources with the aim of improving equity and access by removing the requirement for pupil assessments to access resource hours and drawing on data intended to be indicative of the specific profile of need within each school, such as standardised test results, rather than simply measures of school size and/or specific categories of special educational needs present, as used previously.
   - Despite the inclusion of exceptionally able pupils in the *2011 National Strategy*, progress in addressing their needs was limited, with this remaining a priority area in Ireland's new *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*.
6. More effective approaches to **assessment**, at teacher, school, and system levels:
   - The *2011 National Strategy* introduced mandatory standardised testing in reading and mathematics at three primary grade levels, with results reported to parents and, in aggregate, to Boards of Management, and the Department of Education. While adherence to this requirement was strong, there was a need for further professional development for teachers in test administration and interpretation.
   - The *2011 National Strategy* emphasised Ireland's commitment to participating in large-scale national and international assessments to evaluate literacy and numeracy progress.

Overall, the *2011 National Strategy* coincided with improved outcomes in large-scale assessments of literacy and numeracy and can be argued to have made important strides in enhancing literacy education in Ireland, particularly through its focus on professional development, curriculum reform, and targeted support for learners with additional needs. However, challenges remained in fully embedding digital literacy, improving communication between schools and parents, and addressing the needs of exceptionally able and high-achieving students. The lessons learned from this Strategy have informed the development of the new *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*, which aims to build on these achievements while addressing identified gaps.

COVID-19: The impact and response in primary schools (2020-2021)

The COVID-19 pandemic brought unprecedented challenges to education in Ireland. On March 13, 2020, schools across the country were closed as part of emergency measures to slow the spread of the virus. This led to a period of uncertainty that would extend throughout the school year, along with a sudden shift to remote teaching and learning, which had never before been implemented on such a large scale. For the PIRLS 2021 cohort, this coincided with the final months of Third Class. In April 2020, the Department of Education issued guidelines to help teachers navigate this new reality, encouraging daily engagement with students and the use of a variety of digital tools, emails, and educational television programmes. However, the transition was uneven, with many students experiencing inconsistent contact and feedback from their teachers. Access to suitable digital devices and broadband varied significantly, particularly among pupils from disadvantaged backgrounds, amplifying existing educational inequalities.

To mitigate these challenges, the government introduced several support measures. An additional €3 million was allocated to schools to purchase digital devices and DEIS grants for the 2020-2021 school year were released early. The summer provision programme, which offered additional weeks of instruction for pupils with special educational needs and literacy and numeracy camps for pupils in DEIS schools, was also promoted, with an increase in uptake compared to previous years.

When schools reopened in September 2020, they operated under stringent health and safety protocols, including physical distancing, the formation of class "bubbles" and within-class "pods" to minimise contact, and enhanced cleaning procedures. Teachers were advised to focus on reconnecting pupils to school routines and reviewing previously covered material, especially in priority subjects like language and mathematics. Special emphasis was placed on assessing pupils' learning gaps and supporting those at risk of educational disadvantage, such as students with special educational needs and non-native English speakers.

However, as COVID-19 cases surged again in January 2021, a second nationwide school closure took place, forcing a return to remote teaching and learning. This time, schools were better prepared. Surveys conducted during this period indicated that while most schools were able to maintain daily contact with their students, the quality and frequency of engagement varied. Parents expressed a desire for more live or pre-recorded lessons, and although many pupils reported doing schoolwork daily, the amount of time spent varied widely.

By March 2021, pupils had returned to in-person instruction, with the PIRLS 2021 cohort now completing the final term of Fourth Class. As part of the government's continued efforts to address learning loss, the summer provision programme was expanded further in 2021 to incorporate an "inclusion programme" for pupils with complex needs in mainstream classes and those at risk of educational disadvantage in all schools. Over 18,000 students with special

educational needs and 10,700 pupils from DEIS schools participated, alongside more than 6,000 pupils eligible under the new "inclusion programme". The CLASS was also introduced in September 2021, providing schools with a once-off allocation of additional teaching hours to support students most affected by the closures.

By the time of the PIRLS testing in autumn 2021, the education system had undergone significant adjustments, but the lingering effects of COVID-19 were still evident. Although the 2021/2022 school year did not involve any widespread closure of schools in Ireland, new measures, such as the requirement for primary school pupils in Third Class and above to wear face masks, were introduced. By February 2022, most restrictions, including mask mandates and social distancing, were lifted, and schools began to return to pre-pandemic norms. The PIRLS 2021 data provide valuable insights into this difficult period, showing how pupils, parents, and teachers in Ireland navigated the challenges posed by COVID-19.

To what extent can PIRLS data tell us about the impacts of policy decisions?

The PIRLS 2021 data offer insights into the potential impact of various policies and measures on pupils' reading achievement, but they cannot establish causal links between specific policy decisions and outcomes. The PIRLS 2021 cohort experienced most of their primary education under the *2011 National Strategy*, the PLC, and the disruptions caused by the COVID-19 pandemic. While it is plausible that factors like increased time for literacy instruction and changes in teaching practices contributed to improved performance, the complex nature of these overlapping policies makes it difficult to isolate their effects. The findings highlight possible influences of policy decisions on pupils' education and point towards areas for future research and policy development, especially as Ireland's new *Literacy, Numeracy and Digital Literacy Strategy* is rolled out.

Research questions

Four research questions underpin this report:

1) Which pupil, home, class, teacher, and school characteristics are related to Fifth Class pupils' reading achievement in Ireland? Do these relationships among pupils in Ireland differ from the corresponding ones among their peers in a set of selected reference countries and across all PIRLS participating countries as a whole? To what extent have these relationships among pupils in Ireland changed, if at all, across the PIRLS cycles? *(Chapters 3 – 5)*
2) What are the characteristics of low-, medium-, and high-achieving Fifth Class pupils in reading in Ireland? *(Chapter 6)*
3) Do Fifth Class pupils' wellbeing, school-related experiences, and reading attitudes and behaviours vary by their gender, country of birth, socioeconomic status, and school DEIS status in Ireland? *(Chapter 7)*
4) What were the educational experiences of Fifth Class pupils during the COVID-19 pandemic? *(Chapter 8)*

In Chapter 9, key themes and potential policy implications arising from the findings are identified and discussed.

Chapters 3-5: Reading achievement by pupil, home, class, teacher, and school characteristics

Chapters 3, 4, and 5 focus on the relationships between selected pupil, home, class, teacher, and school characteristics and reading achievement in PIRLS 2021 in Ireland. Where relevant, comparisons are made to earlier PIRLS cycles (2011, 2016) and selected reference countries. All

analyses are interpreted with caution due to the caveats associated with the PIRLS 2021 data.

Key findings on pupil and home characteristics (Chapter 3):

- **Country of birth:** Although the reading achievement gap between pupils born in Ireland and pupils born outside Ireland narrowed between 2016 and 2021, the former group of pupils still performed slightly better than the latter group in 2021. While differences in overall reading achievement were not statistically significant, statistically significant differences were found for the Literary and Retrieve/Infer reading subscales.
- **Language(s) spoken at home:** Pupils who almost always spoke the language of the PIRLS test at home (11%) achieved the highest mean score, compared to those who spoke the language either more or less frequently – a pattern also evident internationally in 2021, and across PIRLS cycles within Ireland.
- **Early education attendance:** Pupils who attended a formal early education programme for children aged 3 or older (95%) achieved a statistically significantly higher mean reading score than those who did not. This difference was evident across overall reading achievement and all reading subscales.
- **Early literacy activities and literacy readiness**: More than half of pupils were often involved in early literacy activities (e.g., reading books, playing with alphabet toys) and were able to do a range of literacy tasks very well before starting First Class, according to their parents. These pupils achieved the highest mean reading scores among their peers. Notably, among the reference countries, Ireland had the second largest achievement gap between pupils who performed early literacy tasks very well and those who did not perform these tasks well.
- **Parental educational expectations:** Pupils whose parents had higher educational expectations for them (e.g., postgraduate degrees) achieved higher mean reading scores compared to those whose parents expected them to achieve lower levels of education, with a gradual increase in scores at each educational expectation level.
- **Access to digital devices:** Approximately three out of four pupils (74%) had their own computer or tablet, and more than half of pupils (56%) had their own smartphone. Pupils who did not have their own digital devices achieved higher mean reading scores than those who did. The magnitude and direction of these differences varied across countries.
- **Wellbeing:** Pupils who reported feeling tired or hungry when arriving at school every day achieved statistically significantly lower mean reading scores compared to their peers. The achievement gaps between these pupils and their peers narrowed between 2016 and 2021 across both overall reading achievement and all reading subscales; however, percentages of pupils reporting that they felt tired or hungry every day or almost every day increased between the two PIRLS cycles.
- **Reading behaviours:** In 2021, approximately three-quarters of pupils reported borrowing books or e-books from their school or local library, with varying frequency. Those who borrowed books or e-books from school or local libraries moderately frequently (once or twice a month) achieved the highest mean reading score among their peers, with mean differences being broadly similar in magnitude across all reading subscales. Pupils who spent no time using digital devices to find and read information on a normal school day (27%) achieved the highest mean reading score among their peers, while those using devices for such purposes for over 30 minutes achieved the lowest scores. This contrasts with findings in most selected reference countries, where the gaps

mostly favoured pupils who spent over 30 minutes on this activity. Although more pupils in Ireland spent over 30 minutes using digital devices to find and read information in 2021 compared to 2016, the achievement gap between these groups narrowed across both overall reading achievement and all reading subscales.

- **Reading attitudes:** Approximately half of pupils (49%) indicated that they were very confident in reading, 31% that they very much liked reading, and 53% that they were very engaged in reading lessons in 2021. These pupils performed statistically significantly better than the rest of their peers across both overall reading achievement and all reading subscales. These patterns of association were consistent with previous PIRLS cycles, though a general decline in positive reading attitudes was observed between 2016 and 2021.
- **Digital attitudes:** Pupils reported enjoying reading on paper more than reading on a screen and finding it easier to remember things they read on paper than on a screen. Higher levels of enjoyment of reading on paper and finding it easy to remember things read on paper were associated with statistically significantly higher mean reading scores, while patterns were less clear-cut when it came to enjoying reading on a screen or finding it easy to remember things read on a screen, with these patterns also being consistent across all reading subscales. Pupils who reported high levels of digital self-efficacy (43%) achieved a higher mean reading score than their peers with lower levels; however, mean differences between pupils with high and low levels of digital self-efficacy were not very substantial.
- **Parents' reading attitudes and behaviours:** Pupils whose parents very much liked reading (42%), those whose parents read for their own enjoyment every day or almost every day (46%), and those whose parents spent more than 10 hours a week reading for themselves at home (24%) achieved the highest mean reading scores compared to their peers. In line with the patterns noted for pupils' reported reading attitudes, there was evidence of some decline from 2016 to 2021 in parents' reading attitudes and frequency of reading.

Key findings on class and teacher characteristics (Chapter 4):

- **Organisation of reading instruction, teaching, and assessment:** More than half of pupils received between five and seven hours of English language instruction weekly, with no statistically significant differences in reading achievement compared to those receiving more than nine hours of instruction. Whole-class reading instruction remained the most common approach, while mixed-ability and individualised instruction, although less frequently employed, increased in usage between 2011 and 2021. Reading activities commonly conducted daily included reading aloud and encouraging silent reading, with a rise in teaching skimming and scanning strategies, though digital literacy activities were less emphasised. Most pupils engaged regularly in tasks such as identifying main ideas and supporting understanding with evidence to develop comprehension skills, but tasks related to digital comprehension skills were less common. Literary texts were favoured over informational texts, with short stories and non-fiction books being the most frequently used text types. Access to school libraries or reading corners in classrooms declined compared to previous years (probably due, at least in part, to COVID-19 restrictions), but access to these was not statistically significantly associated with reading achievement. Around 60% of pupils at least sometimes had digital devices available during reading lessons, a figure consistent with 2011 levels, but, again, device availability

was not statistically significantly associated with reading achievement. Post-reading activities mainly involved answering questions and summarising texts, with less frequent use of quizzes or multi-modal responses. Although 54% of pupils received daily reading homework, this rate declined compared to previous cycles, and the amount of time spent on homework was not statistically significantly associated with reading achievement. Teachers placed strong emphasis on informal assessment methods, with less emphasis on standardised tests or long-term projects.

- **Challenges in reading instruction:** In 2021, around 80% of pupils experienced some disorderly behaviour during reading lessons, with over 10% experiencing it in most lessons, according to teachers. Those in classrooms with frequent disruptions achieved statistically significantly lower mean reading scores compared to their peers in more orderly environments. Additionally, 71% of pupils attended schools where principals noted a moderate impact from reading resource shortages, though very few attended schools where a severe impact from such shortages was reported. There was no statistically significant difference in overall reading achievement between those who were moderately affected and not affected.
- **Teacher characteristics:** Over half of pupils (53%) were taught by teachers who were very satisfied with their jobs, though this proportion decreased from 60% in 2016, and 10% of pupils were taught by teachers who were less than satisfied, up from 4% in 2016. There were no statistically significant differences in reading achievement related to teacher job satisfaction. Between one-third and one-fifth of pupils had teachers who engaged in professional development in reading in the two years prior to PIRLS 2021, while most pupils' teachers expressed a need for further training in reading instruction. More than 40% of pupils were taught by teachers who read for enjoyment daily, while less than 10% had teachers who rarely or never read for enjoyment. No statistically significant differences in reading achievement were found based on the extent to which teachers read for enjoyment.

Key findings on school characteristics (Chapter 5):

- **School composition:** Pupils attending schools where over 90% of pupils spoke English as their native language (58%) achieved the highest mean reading score among their peers, a pattern also observed in some reference countries like Northern Ireland. Most pupils (73%) attended schools where over 75% of pupils had basic literacy skills at the beginning of First Class, and these pupils achieved a higher mean reading score than their peers. Additionally, over 40% of pupils were in schools characterised as more affluent, and these pupils scored statistically significantly higher than those in schools attended by less affluent pupils. The achievement gap between pupils from more affluent and more disadvantaged schools (as reported by school principals) narrowed slightly between 2016 and 2021.
- **School-level resources:** Over half of pupils attended schools with a library, but the proportion of pupils able to borrow library materials decreased in 2021 compared to 2016, likely due to COVID-19 restrictions. Library access and the extent to which libraries were well-resourced were not associated with statistically significant differences in reading achievement. Despite 80% of pupils having access to digital learning resources, Ireland had the lowest proportion of students with such access among the selected reference countries, and this access was not associated with statistically significant differences in reading achievement.

- **School climate, discipline, and safety:** Approximately three-quarters of pupils attended schools deemed very safe and orderly, achieving statistically significantly higher mean reading scores than those in less safe and orderly environments. Additionally, most pupils were in schools with minimal discipline problems, with those in schools with hardly any problems scoring statistically significantly higher than their peers in schools with more severe discipline problems. One-fifth of pupils attended schools with a very high emphasis on academic success and outperformed those in schools with a lower emphasis, though the achievement gap between pupils attending schools with a high versus a medium emphasis narrowed between 2016 and 2021. Over half of pupils reported a high sense of school belonging, which was linked to statistically significantly higher reading achievement, with Ireland showing one of the largest achievement gaps among the reference countries between pupils with high and low sense of school belonging. About 75% of pupils reported never or almost never being bullied and achieved statistically significantly higher mean reading scores than those who experienced bullying on a monthly or weekly basis. Approximately two-thirds of pupils reported never or almost never being absent from school, while 8% were absent once a week or once every two weeks. Pupils who were absent once a week scored statistically significantly lower than those who were absent less frequently. Four out of five pupils had parents who were very satisfied with their school, with these pupils achieving a similar mean reading score to their peers whose parents were somewhat satisfied with their school. Ireland had one of the highest proportions of parents who were very satisfied with their child's school among the selected reference countries.

Chapter 6: Characteristics of low-, medium-, and high-achieving pupils in reading

Chapter 6 describes an analysis of PIRLS 2021 data for Ireland that focuses on the profiles of low-, medium-, and high-achieving pupils. Pupils' gender, the extent to which they were confident in and liked reading, their socioeconomic status, and their school's DEIS status were related to their chances of belonging to the low, medium, or high achievement group in reading, while their country of birth (Ireland vs other) was not related to their chances of belonging to one of these groups. Specifically, girls, pupils who were very confident in reading, those who very much liked reading, those in the higher socioeconomic group, and those attending non-DEIS schools were statistically significantly less likely to be low achievers and statistically significantly more likely to be high achievers in reading compared to boys, pupils who were somewhat or not confident in reading, those who somewhat liked or did not like reading, pupils in the middle and lower socioeconomic groups, and those attending DEIS Urban schools, respectively.

Chapter 7: Pupils' wellbeing, school-related experiences, reading attitudes and behaviours

Chapter 7 focuses on data from the PIRLS 2021 pupil questionnaire about pupils' wellbeing, school-related experiences, and reading attitudes and behaviours. Data are presented by pupils' gender, their country of birth, and their socioeconomic status, and school DEIS status. Absence rates were similar for boys and girls but higher among pupils born outside of Ireland, those in the lower and middle socioeconomic groups, and those attending DEIS Urban Band 1 schools, compared to their peers born in Ireland, those in the higher socioeconomic group, and pupils

attending non-DEIS schools, respectively. Boys were more likely to feel tired at school daily, as were pupils in the lower and middle socioeconomic groups and pupils attending DEIS Urban schools, although hunger levels did not differ by the examined characteristics. Boys, pupils born outside of Ireland, those from lower socioeconomic backgrounds, and those attending DEIS Urban Band 1 schools also experienced more frequent bullying compared to girls, pupils born in Ireland, those from higher socioeconomic backgrounds, and those attending non-DEIS schools. Girls reported a stronger sense of school belonging than boys, while pupils in DEIS Urban Band 1 schools reported a weaker sense of school belonging compared to their peers attending non-DEIS schools. Boys and girls were broadly similar in terms of the extent to which they were confident in reading, as were pupils born in Ireland and those born outside of Ireland, though pupils from lower socioeconomic backgrounds and those attending DEIS Urban Band 1 schools were less confident in reading compared to the rest of their peers. Girls and pupils in the higher socioeconomic group tended to like reading more than boys and pupils from lower socioeconomic backgrounds, respectively, while pupils in DEIS Urban schools tended to like reading less than their peers attending non-DEIS schools. Lastly, girls were more engaged in reading lessons compared to boys, while country of birth, socioeconomic status, and school DEIS status showed no statistically significant differences in engagement during reading lessons.

Chapter 8: Educational experiences during the COVID-19 pandemic

Chapter 8 focuses on the teaching experiences of Fourth Class and Fifth Class teachers in Ireland, with Fourth Class teachers reflecting on the 2020/2021 school year (which included the second COVID-19 lockdown and related school closures, as well as the return to in-person teaching) and Fifth Class teachers reflecting on the situation at the time of the PIRLS testing, early in the 2021/2022 school year.

- **Remote teaching and learning:** During remote teaching and learning in Ireland in early 2021, 69% of Fourth Class pupils were taught by teachers who delivered recorded lessons on a daily basis, while live lessons were less frequent. Most pupils were assigned activities by digital means, such as the school website, on a daily basis, while paper-based tasks were less common, presumably due to COVID-19 restrictions. A majority of pupils were in classes where at least three-quarters of pupils were reported to regularly engage in remote literacy learning, with most having access to suitable digital devices and internet connection, and 66% having a suitable workspace for learning at home. Just under half of pupils were reported to have support from someone at home for literacy development. Nearly all pupils were taught by teachers who had access to digital devices, though fewer were taught by teachers who had a suitable internet connection or a suitable workspace, and about half were taught by teachers who felt that they received sufficient guidance on remote learning. Teachers sourced support for remote instruction primarily from teaching colleagues, followed by school management, the PDST, the Department of Education, and the National Council for Curriculum and Assessment (NCCA).
- **In-person teaching and learning:** Following the return to the classroom, most pupils were taught by Fourth Class teachers who assigned homework, in which reading was a component, at least three times a week, and were expected to spend 30 minutes or less on it each time. Within the 40% of pupils whose schools provided a 2021 summer programme funded by the Department of Education, 43% attended schools that provided a DEIS Literacy and Numeracy camp, 68% attended schools that provided an inclusion programme for pupils with Special Educational Needs and/or at risk of

disadvantage who were in mainstream classes, and 62% attended schools that provided a Special Educational Needs Programme for pupils in special classes.

- **COVID-19 and literacy learning:** The majority of pupils were taught by both Fourth Class and Fifth Class teachers who reported that COVID-19 restrictions, such as restricted access to facilities, unavailability of support teachers, requirements for additional planning time, and certain safety measures like hand sanitising and social distancing, negatively affected pupils' literacy learning. According to their Fourth Class teachers, nearly all pupils faced some negative impact on literacy development during the COVID-19 pandemic, with more than half of pupils being taught by teachers estimating that between a quarter and half of their pupils were affected, and two-fifths being taught by teachers estimating that three-quarters or more of their pupils experienced challenges. When looking at both Fourth and Fifth Class teachers' estimates, it seems that the literacy development of fewer pupils was regarded as negatively affected by challenges due the COVID-19 pandemic in the autumn of 2021 (the time of the PIRLS assessment) than in the previous school year (2020-2021).

Chapter 9: Key findings and conclusions

The PIRLS 2021 implementation included three notable changes compared to previous cycles: the planned transition to digital testing for some countries, the planned adoption of a "group adaptive testing" method, and unplanned adjustments due to the COVID-19 pandemic. The pandemic led to an extended data collection window in the main study, from autumn 2020 to spring 2022. In Ireland, the assessment was delayed from spring to autumn 2021, moving testing from Fourth Class (End G4) to Fifth Class (Start G5), with the paper-based version being used instead of the intended digital version. Despite these challenges, Ireland achieved high response rates, reflecting strong commitment from schools and families.

Interpreting the PIRLS 2021 data requires consideration of several caveats. Internationally, comparisons between End G4 and Start G5 countries, and between countries that administered PIRLS 2021 on paper versus digitally, should be made with caution, even though the scaling methodology accounted for mode effects. Nationally, for Start G5 countries like Ireland, differences in age, grade, and timing of assessment in the PIRLS 2021 cycle compared to previous cycles affect trend comparisons. Despite these caveats, the PIRLS 2021 data offer valuable insights into the reading comprehension skills and related experiences of Fifth Class pupils in Ireland as well as the educational context during the COVID-19 pandemic.

Chapter 9 consolidates the key findings, explores their alignment with the policy context of PIRLS 2021, and outlines potential policy implications and recommendations for future research.

- **Factors associated with reading achievement:** Between 2016 and 2021, the reading achievement gap between pupils born in Ireland and those born outside Ireland narrowed, with the 2021 gap being not statistically significant. Despite this progress, gaps remain on specific reading subscales favouring pupils born in Ireland, highlighting the need for continued focus on inclusion within the Irish education system. This aligns with certain objectives of the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*, which emphasise support for diverse learners, including immigrant pupils, to achieve their potential. While progress has also been made in Ireland in addressing the needs of low achievers, certain groups—boys, pupils who were not confident in or did not like reading, those from lower socioeconomic backgrounds, and those in DEIS Urban schools—remained at higher risk of low achievement, highlighting a need for enhanced supports.

- **Attitudes towards and engagement in reading:** In 2021, there was a decline in the proportion of pupils who were very confident in reading and an increase in those who were less confident compared to 2016. Concurrently, the achievement gap between these two groups widened. Although the achievement gap between pupils who liked reading and those who did not narrowed between 2016 and 2021, it was accompanied by a decline in the proportion of pupils who very much liked reading and an increase in those who did not, a pattern also observed among pupils' parents. Engagement in reading lessons also declined, likely due, at least in part, to the effects of prolonged school closures and remote teaching and learning, and the achievement gap between highly engaged and less engaged pupils increased slightly. Additionally, while fewer pupils had parents who frequently read for enjoyment in 2021, the time spent reading by parents showed a stronger association with pupils' reading achievement in 2021 than in previous years. Although gender differences in the extent to which pupils felt confident in reading were not substantial, boys tended to like reading and be engaged in reading lessons less than girls, and pupils from higher socioeconomic backgrounds and non-DEIS schools tended to be more confident in and like reading more than those from lower socioeconomic backgrounds and DEIS Urban schools, respectively. Overall, these findings, reflecting a decline in reading attitudes and engagement among both pupils and their parents, potentially linked with the COVID-19 pandemic, contrast with the stability observed in reading attitudes between 2011 and 2016 and highlight the importance of the continued emphasis on improving attitudes towards and engagement in learning, as outlined in the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*.
- **Reading activities and instruction:** The emphasis on early years' education and parental involvement in literacy, highlighted in *the 2011 National Strategy* and its interim report, continues in the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*. The findings presented in this report indicate that frequent early literacy activities at home and literacy readiness before starting First Class are positively linked to reading achievement. Given these findings, this continued emphasis appears justified, while the slightly higher frequency of pupil engagement in early literacy activities at home reported by parents in 2021 compared to previous years may be linked to this emphasis. The findings also support the need for widespread availability of suitable screening and diagnostic tests for literacy difficulties and the implementation of interventions during these formative years to further support prevention at primary level, as outlined in the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*. Despite the introduction of the new PLC, classroom practices remained largely unchanged compared to previous years, likely due in part to the prolonged school closures and remote teaching and learning that presumably disrupted the smooth rollout of the curriculum. However, a few notable differences emerged in 2021, such as increased emphasis on peer discussions about reading and on writing responses, but decreased provision of materials matching pupils' interests and opportunities for independent reading. These may reflect adjustments from a combination of the new curriculum and remote teaching and learning challenges.
- **Use of digital devices for reading and other activities:** In Ireland, access to computers, tablets, and smartphones was linked with lower reading achievement, though this varied across countries, likely suggesting that type of device usage may be more critical than ownership alone. Despite an inevitable increase in technology use during the COVID-19 pandemic, pupils in Ireland preferred reading on paper and remembered paper-based content more easily, with this preference aligning with the predominantly paper-based instruction in Irish schools. According to teachers' reports, levels of access to digital

devices during reading lessons in 2021 remained similar to those reported in 2011. Also, instruction related to digital literacy was limited, with a minority of pupils receiving regular instruction on these skills. This is despite teachers' participation in professional development on integrating technology into reading instruction. Considering the relatively limited exposure of pupils to digital devices during reading lessons, the relatively high level of digital self-efficacy reported by pupils may be partly associated with their use of digital devices outside of school. The *Literacy, Numeracy and Digital Literacy Strategy 2024-2033* recognises digital literacy as fundamental for learners' development, advocating for better digital resources and support for teachers to enhance technology integration in education, in line with the *Digital Strategy for Schools to 2027* and the *Digital Learning Framework for Primary Schools*. Future participation in international digital literacy assessments, such as the International Computer and Information Literacy Study (ICILS), could provide valuable insights into progress in this area.

- **Wellbeing:** In 2021, approximately half of pupils reported that they sometimes feel tired upon arriving at school, with over a quarter experiencing this fatigue about daily. Similarly, about half of pupils reported that they sometimes feel hungry when they arrive at school, while about one-fifth reported that they feel that way every or almost every day. Data on the reasons for this fatigue and hunger were not collected in PIRLS 2021; their investigation in subsequent cycles could help develop targeted interventions to address these issues. Fatigue was more common among boys, pupils from lower socioeconomic backgrounds, and those in DEIS Urban schools, while pupils in the lower socioeconomic group were also more likely to feel hungry upon school arrival compared to the rest of their peers, with some of these findings corroborating existing, relevant research. The recent expansion of the *School Meals Programme* may mitigate hunger, at least for a portion of the affected pupils. Aligned with findings from existing research within the Irish context, the frequency of bullying increased slightly between 2016 and 2021, with about one-quarter of pupils reporting being bullied at least monthly, and those bullied performing statistically significantly worse in reading compared to their peers who were not bullied. Boys were more likely to experience frequent bullying compared to girls, pupils born outside Ireland experienced more frequent bullying than those born in Ireland, and higher rates of being bullied were observed in the lower and middle socioeconomic groups and DEIS Urban Band 1 schools. Addressing tiredness, hunger, and bullying, among other aspects of pupil wellbeing, especially among those subgroups of pupils who are most at risk, necessitates systemic and prevention-focused approaches, which may be facilitated, for example, by guidelines such as those in the *Cineáltas: Action Plan on Bullying*. Future research could employ more integrative analyses of wellbeing components to provide a more comprehensive understanding of wellbeing and, in turn, inform effective interventions.
- **COVID-19: Learning from a unique moment in educational history:** During the COVID-19 pandemic, Fourth Class teachers reported drawing on supports from a range of organisations, such as the Department of Education, PDST, and NCCA, to help facilitate remote learning during the second period of school closures from January to March 2021; however, the most frequently used supports originated from their immediate working environment (i.e., their school). This was echoed by other research conducted during the first lockdown in 2020, highlighting the importance of within- and cross-school support systems. Fifth Class teachers in autumn 2021 reported fewer negative impacts on pupils' literacy development from the pandemic compared to Fourth Class

teachers in the previous school year. The relatively more optimistic perspectives of Fifth Class teachers suggest that some pupils were able to catch up quickly, potentially aided by extensive guidelines and initiatives like expanded summer programmes. Further research could explore how COVID-19 differentially affected literacy development among specific pupil subgroups, such as those from lower vs higher socioeconomic backgrounds or those attending DEIS vs non-DEIS schools.

This report presents comprehensive findings from descriptive and bivariate analyses of PIRLS data for Ireland, selected reference countries, and on average across all PIRLS countries, incorporating both achievement and contextual data. Building on these findings, further multivariate analyses could help determine the extent to which predictors of primary school pupils' cognitive and non-cognitive outcomes have shifted in tandem with the extended school closures and remote teaching and learning of 2020 and 2021. Such analyses could further support the development of targeted policies, initiatives, and instructional practices.

The report also suggests the crucial role of parents—not only in their children's academic achievement, but also in shaping their attitudes and behaviours towards reading, a topic warranting further investigation.

A key area for future focus is the monitoring of digital literacy, especially as it becomes an integral part of the curriculum under the *Literacy, Numeracy and Digital Literacy Strategy 2024–2033*. Despite progress, challenges remain in ensuring that schools are adequately equipped with digital resources and that teachers receive sufficient support for integrating technology into their lessons. Given the increasing importance of digital skills, the report suggests Ireland consider participating in international digital literacy assessments, such as ICILS, to better track progress.

Looking ahead, data from PIRLS 2026, as well as other national and international assessments like NAMER, PISA, and TIMSS, will offer critical insights into how Ireland's education system is evolving. These assessments will help to evaluate the effectiveness of the new *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*, identifying strengths and areas for further improvement. The report concludes by emphasising the importance of ongoing monitoring and research to refine educational strategies, promote equity, and support all pupils in reaching their full potential in an increasingly digital world.

PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

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CHAPTER 1

Chapter 1: Overview of PIRLS 2021

This report explores the contexts for the reading achievement of primary school pupils in Ireland, as captured by the *Progress in International Reading Literacy Study* (PIRLS) in 2021. Specifically, it describes the reading-related experiences, attitudes, and behaviours of pupils who participated in PIRLS 2021 in Ireland, along with relevant contextual information as provided by these pupils' parents/guardians[2], teachers, and school principals. In doing so, it examines the relationships of selected pupil, home, class/teacher, and school characteristics with the reading achievement of primary school pupils in Ireland.

This first chapter provides a brief overview of PIRLS and its implementation in Ireland in 2021 amidst the unique context of the COVID-19 pandemic. It highlights important caveats that need to be considered when interpreting PIRLS 2021 data due to COVID-19 impacts on the PIRLS administration both in Ireland and internationally. Next, a synopsis of key findings from the PIRLS 2021 national report by Delaney et al. (2023) is provided, to which readers are referred for further information about the study. Finally, the chapter outlines the scope and structure of the rest of this report and provides guidance on interpreting the data therein.

Introduction to PIRLS

PIRLS is a comparative study that assesses the reading skills of primary school pupils in participating countries worldwide and it is overseen by the International Association for the Evaluation of Educational Achievement (IEA). In Ireland, the Educational Research Centre (ERC) manages PIRLS on behalf of the Department of Education, adhering to IEA procedures to ensure international comparability.

PIRLS was first administered in 2001, with 35 countries taking part. Since then, the study has taken place every five years, with an increasing number of countries participating on each occasion. Ireland has taken part in three cycles to date: 2011, 2016, and 2021, with 57 countries taking part in the 2021 cycle. PIRLS collects achievement data from pupils based on a test of reading comprehension, while questionnaires are also used to collect contextual data from the pupils, their parents, their teachers, and their school principals.

Reading achievement in PIRLS is measured on a scale with a centrepoint of 500 (the average achievement across participating countries in the first cycle in 2001) and a standard deviation (*SD*) of 100. In 2011, pupils in Ireland achieved a mean PIRLS score of 552, and were outperformed by pupils in five participating countries: Hong Kong, the Russian Federation, Finland, Singapore, and Northern Ireland (Eivers & Clerkin, 2012). In 2016, pupils in Ireland achieved a mean PIRLS score of 567, which represented a statistically significant improvement from 2011. This mean score was equivalent to that of pupils in Hong Kong, Finland, and Northern Ireland, with only the Russian Federation and Singapore statistically significantly outperforming Ireland (Eivers et al., 2017). In 2021, pupils in Ireland achieved a mean PIRLS score of 577, which, again, represented a statistically significant improvement from 2016. As explained later in this chapter, though, all trend comparisons of countries' achievement in PIRLS 2021 to previous cycles should be made cautiously, due to the disruption caused by COVID-19. This is especially relevant for countries, including Ireland, that tested at the start of grade 5

2 Throughout the remainder of the report, the term "parents" is used to refer to both parents and guardians of pupils.

rather than at the end of grade 4 in 2021. While caution is warranted in comparing mean achievement across PIRLS 2021 participating countries, the data indicate that Ireland retains its place among a set of very high-achieving countries in relation to reading in primary school.

The PIRLS test was fully paper-based up to and including 2011, but there has since been a movement towards exploring the possibilities of digital testing. A similar shift has occurred in other international large-scale assessments such as the Trends in International Mathematics and Science Study (TIMSS) (Mullis et al., 2020) and the Programme for International Student Assessment (PISA) (Organisation for Economic Co-operation and Development [OECD], 2016). In the 2016 cycle of PIRLS, an optional "add-on" assessment of digital literacy, called ePIRLS, was introduced. Fourteen countries, including Ireland, took part in ePIRLS as well as PIRLS. This meant that the same pupils who sat the paper-based PIRLS test (or, in Ireland's case, a random subsample of these)[3] also sat the computer-based ePIRLS test on a subsequent morning. The ePIRLS test required pupils to navigate through a hyperlinked network of multimodal texts that simulated an online environment. ePIRLS results were placed on the same scale as PIRLS results, meaning that a country's performance across the two tests could be directly compared. Pupils in Ireland achieved a mean score of 567 in ePIRLS, which was very similar to the mean score of the same pupils on the paper-based PIRLS test (Eivers et al., 2017).

What does the PIRLS test assess?

PIRLS assesses pupils' reading literacy. In the framework that guides the development of the PIRLS assessment, reading literacy is defined as:

> the ability to understand and use those written language forms required by society and/or valued by the individual. Readers can construct meaning from texts in a variety of forms. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment (Mullis & Martin, 2019, p. 6)

This operationalisation of reading literacy in PIRLS encompasses various text and item (question) types. In the 2021 cycle, some countries, including Ireland, administered PIRLS entirely on paper, while others administered it entirely on computer. The paper-based assessment included 18 texts, while the digital version incorporated an additional five ePIRLS texts (or "projects"). Each text was classified based on the primary purpose for which it would be read: either for literary experience ("Literary"), or to acquire and use information ("Informational"). Literary texts are, typically, fictional and narrative in form, while Informational texts may be factual and/or instructional articles and are more likely to include non-continuous elements such as infographics, diagrams, or timelines. Among the 18 texts included in both paper-based and digital PIRLS in 2021, an equal split between Literary and Informational was maintained. The five ePIRLS texts were all Informational, reflecting the prevalent online reading practices geared towards gleaning information (Mullis & Martin, 2019).

In addition to categorisation by reading purpose, each text was classified as easy, medium, or difficult, based on its difficulty level across countries in previous cycles (for trend texts) or in the 2020 field trial (for new texts). The targeted average percentage of correct responses, calculated across the international population of PIRLS pupils, was set at 80% for easy texts, 65% for medium texts, and 50% for difficult texts.

3 Due to the variable education technology infrastructure in schools in Ireland, ePIRLS testing in 2016 was conducted on laptops supplied to schools by the ERC. As it was not practicable to supply and set up laptops for all PIRLS pupils in larger schools, a random subsample of up to 22 PIRLS pupils per school was selected to participate in ePIRLS. For additional information, please see Eivers et al. (2017).

The PIRLS texts were organised into 18 booklets, with each pupil assigned one of these booklets.[4] Each booklet comprised two texts and their items, and each text appeared in two different booklets, paired with a different text each time. All booklets included one Literary and one Informational text, with the Literary text positioned first in 10 booklets and the Informational text positioned first in the remaining eight booklets. Pupils had 40 minutes to read their first text and to respond to between 12 and 18 items based on it. After a short break, they had another 40 minutes to do the same with their second text.

PIRLS items are classified based on the primary comprehension processes they require: focus on and retrieve explicitly stated information ("Retrieve"); make straightforward inferences ("Infer"); interpret and integrate ideas and information ("Interpret"); or evaluate and critique content and textual elements ("Evaluate"). PIRLS aims to distribute these items across the assessment, presenting approximately 20% Retrieve, 30% Infer, 30% Interpret, and 20% Evaluate items (Mullis & Martin, 2019).

Some items in the PIRLS assessment employ a multiple-choice format, where pupils are typically presented with four response options and asked to select the most appropriate one. More rarely, items require the pupil to "tick all that apply" from a list of statements, or to assign each of a set of statements to one of two categories (e.g., true/false). Other items use a constructed-response format, requiring the pupil to write out their answer (or to type it, in countries administering digital PIRLS). These constructed-response items may be worth varying points, ranging from one to three, and pupils are advised to consider the points allocated for each item and adjust the length and detail of their response accordingly.

The PIRLS booklets varied by difficulty level. Booklets 1 – 9 were classified as more difficult. Of these, three booklets contained two difficult texts, while six contained a medium text followed by a difficult text. Booklets 10 – 18 were classified as less difficult. Of these, six booklets contained an easy text followed by a medium text, while three booklets contained two easy texts. Within each country, the assignment of booklets to individual pupils was random, ensuring an equal probability for any two pupils within the same country to receive a specific booklet. However, different ratios were used in different countries to distribute the more difficult versus less difficult booklets, based on what was known from previous assessments about average reading proficiency in each country. This was a new approach for PIRLS 2021 and allowed for the difficulty of the assessment to be tailored, in a macro sense, to the needs of different populations. The PIRLS 2021 national report for Ireland (Delaney et al., 2023) includes sample PIRLS texts of varying purposes (Informational/Literary) and difficulty, along with their accompanying items.

What contextual information does PIRLS collect?

In addition to assessing pupils' reading literacy, PIRLS collects data on their demographic characteristics, attitudes, and experiences, and about the home, classroom, school, and national contexts in which they learn. Information about each of these contexts has been analysed for the purposes of this report as it can provide important insights into factors associated with reading achievement. It can also prove valuable in its own right – for example, by providing evidence about issues such as the prevalence of bullying among children, the level of job satisfaction among teachers, and the extent of school-level resourcing problems within and across countries.

4 The booklet rotation for countries administering digital PIRLS was somewhat more complex. The 18 booklets from the paper PIRLS rotation were included, but, in addition, there were ePIRLS-only booklets and "hybrid" booklets (containing one PIRLS Informational text and one ePIRLS text). For details of this rotation scheme, see Martin et al. (2019).

The collection of contextual information is guided by the PIRLS 2021 Context Questionnaire Framework (Mullis et al., 2019). This framework describes the various instruments administered and the rationale for the items used in each. Brief descriptions of the instruments are provided next.

A **pupil questionnaire** is administered to each pupil after they complete the PIRLS test (generally following a short break). This questionnaire collects demographic information (gender, age, frequency of speaking the test language at home), as well as information about pupils' attitudes towards reading, reading behaviours, and engagement in reading lessons. It also probes their school experiences (e.g., sense of school belonging; frequency with which they arrive at school tired or hungry; frequency with which they have been bullied) and home environments (e.g., approximate number of books in the home).[5]

A **home questionnaire** is sent to pupils' parents to gather further information about pupils' home environments, including language(s) spoken, information about early literacy activities and skills, the extent to which parents like reading and spend time reading, and indicators of socioeconomic status (e.g., parental education level, parental occupation). In 2021, some questions were added to capture parents' perspectives on their children's experiences during periods of school closures and remote learning due to the COVID-19 pandemic.

A **teacher questionnaire** is provided to the class teachers of PIRLS pupils. This collects demographic information and asks about teachers' qualifications, professional development, classroom practices, and levels of job satisfaction. In 2021, additional questions asked about teachers' perspectives on the impact of COVID-19 in their classes.[6]

A **school questionnaire** is provided to the principal of each school participating in PIRLS. This asks about principals' qualifications and experience, as well as the school's size, location, socioeconomic profile, and resources. It also asks about emphasis on academic success, discipline and safety, and the teaching of reading skills and strategies within each school. In 2021, some questions were added about the length of time during which school closures were in place due to COVID-19 and about school policies and practices relating to remote learning during these periods.

Finally, a **curriculum questionnaire** is completed by curriculum and education experts in each country. This captures information about national education systems as a whole – for example, about early childhood education, age of school entry, teacher and principal education, language(s) of instruction, and the language and reading curriculum. Each country also provides a chapter about its education system for the PIRLS Encyclopedia (Reynolds et al., 2022). In Ireland, information for the Curriculum Questionnaire and Encyclopedia chapter (Department of Education et al., 2022) was provided by the Department of Education, the National Council for Curriculum and Assessment (NCCA), and the ERC PIRLS 2021 team.

New features and the context of PIRLS 2021

PIRLS 2021 included three notable changes relative to previous cycles. Two of these were

5 Teachers were given the option to read the questionnaire aloud to the entire class or allow pupils to complete it independently, as they were best placed to decide what would work for their class. Additionally, they were allowed to read questionnaire items aloud to individual pupils upon request and provide clarifications if needed.

6 In Ireland, the full PIRLS teacher questionnaire was administered to the Fifth Class teachers at the time of testing in autumn 2021. A supplementary national teacher questionnaire was administered to the Fourth Class teachers from the previous year. This is further described in the *New features and the context of PIRLS 2021* section of this chapter.

planned: a further transition towards digital test administration, and the introduction of a "group adaptive testing" approach to improve the quality of information collected in the lowest- and highest-achieving countries. The third was unplanned, as it stemmed from the need to adapt procedures to meet challenges posed all over the world by the COVID-19 pandemic. Detailed information about each of these three changes both internationally and in Ireland are provided in the PIRLS 2021 national report (Delaney et al., 2023). A summary of the specific impacts for Ireland is provided below.

PIRLS 2021 in Ireland was originally intended to be administered as a digital assessment to Fourth Class pupils in spring 2021. However, due to the disruptions to education introduced by the COVID-19 pandemic, PIRLS was ultimately conducted as a paper-based test in autumn 2021, with pupils in the originally sampled schools, who by then had progressed to Fifth Class. Initial preparations for PIRLS between 2019 and 2020 were carried out on the basis that Ireland would be administering PIRLS as a digital assessment.

The field trial for digital PIRLS in Ireland was scheduled to take place during March and early April 2020. This timeframe coincided with the onset of the COVID-19 pandemic in Ireland, leading to an abrupt halt to field trial data collection shortly after it had begun. A closure of all school buildings in Ireland was initiated from March 13, 2020, and children did not return to in-person schooling for the remainder of the school year (for additional information, see Department of Education et al., 2022 and Delaney et al., 2023). Consequently, field trial data could only be collected from 10 out of the 40 sampled schools, and these data were submitted to the IEA in May 2020. Despite the pandemic's varying impact across participating countries, the IEA deemed that sufficient quality data had been collected internationally to allow for the selection of texts and items for the main study (Wry & Mullis, 2023). Following the field trial, plans for a digital PIRLS main study in spring 2021 in Ireland continued for a time, albeit amidst uncertain circumstances.

The pandemic remained a significant concern throughout 2020, with continued unpredictability regarding its impact on schools, pupils, and all education stakeholders. In response, the Department of Education, in consultation with the ERC, decided to revert to paper administration for the PIRLS 2021 main study. This decision aimed to maximise the likelihood of schools and individual pupils being able to participate in the PIRLS assessment under various potential circumstances arising from the ongoing pandemic. Digital administration would have required sets of hired laptops to transit between participating schools, accompanied by visiting technical support personnel. Testing on paper was considered a safer option, as it minimised the risk of COVID-19 transmission and reduced disruptions. Additionally, not having to coordinate test dates with technical support personnel provided schools with greater flexibility in scheduling testing. This was particularly advantageous in the event of unexpected closures or large-scale absences.

Following a spike in COVID-19 transmission levels from late 2020 to early 2021, a second blanket closure of school buildings was implemented starting in January 2021. In response to the exceptional circumstances created by the pandemic, the IEA offered PIRLS countries the option of conducting PIRLS in the autumn. In February 2021, the Department of Education decided to avail of this option and moved the PIRLS data collection in Ireland to the autumn. This decision was made in light of ongoing uncertainty about the duration of school closures and with the aim of minimising stress for pupils and teachers.

The decision to move PIRLS to autumn meant that pupils in Ireland would be tested at the start of Fifth Class rather than towards the end of Fourth Class, making them approximately six

months older at the time of testing. Thirteen other northern hemisphere countries (Bahrain, Croatia, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Morocco, Northern Ireland, Qatar, Saudi Arabia, United Arab Emirates, United States) also delayed their administration to autumn 2021 due to similar circumstances. These countries are referred to as "Start G5", while other countries are referred to as "End G4". There were also a few countries (Australia, Brazil, England, Iran, South Africa, Israel) that administered PIRLS to fourth grade pupils one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The PIRLS test window in Ireland spanned from September 27 to October 21, 2021. While the decision to move to autumn testing was considered the most practical course of action, the changes to the age, grade level, and context of testing result in significant caveats being required for cross-country and trend comparisons, as explained later in this chapter and reiterated throughout this report.

In Ireland, the teacher questionnaire was completed by the pupils' Fifth Class teachers (i.e., their class teachers at the time of testing). However, Ireland's data from this questionnaire have not been included in the PIRLS 2021 International Database, as they are not directly comparable to the data from countries that administered it to the fourth grade teachers.[7] Nonetheless, the data are available to the ERC and provide valuable within-country information, including responses to additional national questions concerning the pandemic's impact on classroom practices.

As a national addition in Ireland, teachers who had taught participating pupils in Fourth Class were also asked to complete a shorter, custom-built questionnaire. This aimed at collecting some similar information about the school year during which PIRLS 2021 was originally scheduled to take place. Expectedly, the response rate for this supplementary questionnaire was lower, as some of the previous year's Fourth Class teachers had left the school or gone on leave by the time of the main study administration.

Additional information about the PIRLS administration in Ireland, including the administration of the test and context questionnaires, and the quality monitoring procedures implemented can be found in the PIRLS 2021 national report (Delaney et al., 2023).

Who took part in PIRLS 2021?

In total, 57 countries participated in PIRLS 2021, involving 320,542 pupils along with their parents, teachers, and school principals. A further 47,033 pupils took part on behalf of eight benchmarking participants.[8] The majority of countries (37) adhered to the original testing schedule, assessing pupils approaching the end of fourth grade. Six countries delayed testing by one year but still evaluated fourth grade pupils, with the northern hemisphere countries in this group benefitting from more normalised schooling conditions in 2022. Fourteen countries, including Ireland, administered PIRLS to pupils at the start of fifth grade in autumn 2021.

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7 Among Start G5 countries, there was variation in the approaches taken, with some countries opting to distribute the questionnaires to the fourth grade teachers from the previous year and others administering them to the fifth grade teachers who taught the sampled classes at the time of testing.

8 Benchmarking participants may be subnational regions or cities, or national entities that administer PIRLS to a population other than the target grade. For example, the United Arab Emirates participated in PIRLS as a country, but also drew separate benchmarking samples to provide more detail on the performance of pupils in Abu Dhabi and Dubai. South Africa participated as a country at the target grade, but also administered PIRLS to a benchmarking sample of pupils at a higher grade level (Grade 6). In this report, the main focus is on country-level results, while overall results for benchmarking participants can be found in the e-Appendices of the PIRLS 2021 national report (Delaney et al., 2023).

The PIRLS countries were divided relatively evenly between paper-based and digital test administration modes, with 32 countries opting for paper-based testing and 25 countries administering PIRLS digitally (with a paper "bridge" sample added, to allow for analysis of any mode effects).[9] Ireland was among the countries that administered PIRLS on paper, as the planned digital administration was deemed high-risk when the additional complications of the pandemic were factored in.

The PIRLS 2021 sample for Ireland was drawn by Statistics Canada, the agency tasked with drawing school samples for all participant countries, in consultation with the ERC. For Start G5 countries like Ireland, the sample initially selected for spring 2021 testing, consisting of fourth grade (equivalent to Fourth Class in Ireland) pupils was assessed in autumn 2021 after transitioning to fifth grade (equivalent to Fifth Class in Ireland). Following the decision to postpone testing in Ireland, it was agreed with Statistics Canada that the sample already drawn for spring testing in Ireland would be used whenever possible, albeit with the target pupils having progressed to Fifth Class prior to testing.

Details regarding the selection of schools and class groups, the necessary adjustments due to the move to autumn testing, and response rates are outlined in the PIRLS 2021 national report (Delaney et al., 2023). Notably, despite the challenges posed by the pandemic to parents, pupils, and school staff during and leading up to the 2021 testing period, response rates for PIRLS 2021 remained commendably close to those achieved in PIRLS 2016, highlighting a strong commitment across these groups to participating as fully as possible in the study. This dedication ensured that the collected data can be considered representative of the wider population of pupils at the target grade level for this cycle of PIRLS in Ireland.

In total, 4,663 pupils from 148 schools participated in PIRLS 2021 in Ireland. Contextual data were available from the pupil questionnaire (4,643 pupils), home questionnaire (4,322 pupils), teacher questionnaire (4,520 pupils), and school questionnaire (4,610 pupils). It is important to note that where data from teachers who had taught participating pupils in Fourth Class are presented in this report, these refer to those Fourth Class teachers whose classes progressed intactly from Fourth to Fifth Class in 2021. Data from Fourth Class teachers whose classes did not progress intactly from Fourth to Fifth Class in 2021 have been excluded from the analysis. This means that of the 4,663 participating pupils, 3,317 had (at least some) data available from the national Fourth Class teacher questionnaire.

Caveats in the interpretation of PIRLS 2021 data

Several important caveats must be considered when interpreting the PIRLS 2021 data. These caveats are outlined in Table 1.1 and are reiterated throughout this report (for more information, see Delaney et al., 2023).

9 The United States administered PIRLS digitally but opted to report only the results from its paper bridge study.

Table 1.1: Caveats associated with international and trend comparisons using PIRLS 2021 data

1.	**International comparisons**
End G4 vs Start G5	Great caution is needed when comparing the PIRLS 2021 data for Start G5 countries, such as Ireland, with the data for End G4 countries. Pupils that tested at Start G5 were, on average, six months older than those that tested at End G4. The Start G5 pupils were also in a different grade and at a different point in their school year, and had recently experienced the summer break. Importantly, too, more time had elapsed since school closures for pupils in most Start G5 countries than for those in most End G4 countries. Caution is also needed in the interpretation of international comparisons that involve End G4 countries that tested one year later than planned, particularly those in the northern hemisphere that tested in spring 2022 (generally, towards the end of a comparatively "normal" school year, without large-scale lockdowns).
Paper vs digital administration	While the scaling methodology in PIRLS 2021 took account of mode effects at international level and allowed for the placement of paper and digital PIRLS data on a single scale, it may be useful to bear in mind the different modes of administration when drawing international comparisons. For example, while all pupils were asked about the extent to which they liked reading as part of the pupil questionnaire, it seems probable that pupils who had just completed a paper test might think mainly about reading on paper, while those who had completed a digital test might be more likely to think about reading on screens.
2.	**Trend comparisons**
***Start G5 countries:* change of age, grade, and time of year**	Comparisons between Ireland's PIRLS 2021 data and Ireland's data from previous PIRLS cycles must be made with considerable caution. Because Ireland participated at Start G5 in 2021, participating pupils were, on average, six months older than those who took part in PIRLS in 2016. The 2021 pupils were also in a different grade, and taking the test at a different time of the school year. This caveat also affects the other 13 countries that tested at Start G5 in 2021.
***Countries that tested one year later than planned:* six-year trend**	The countries that tested one year later than planned (but at End G4) report on a six-year rather than a five-year trend relative to PIRLS 2016.
***All countries:* impact of COVID-19 on instruction**	A general caveat that applies to trend comparisons with 2021 data relates to the impact of COVID-19 on pupils' experience of instruction. PIRLS 2021 pupils in many (though not all) countries had experienced protracted periods of school closures and remote learning, unlike their counterparts in earlier cycles. It is difficult to say to what extent these experiences have impacted on trends in PIRLS achievement, and to what extent such an impact may have varied across countries, and between sub-populations within countries.

Note. Adapted from *PIRLS 2021: Reading results for Ireland* (p. 12), by E. Delaney, S. McAteer, M. Delaney, G. McHugh, & B. O'Neill, 2023, Educational Research Centre. Reprinted with permission.

Synopsis of key findings from initial PIRLS 2021 report

This section provides a synopsis of key findings from the initial report by Delaney et al. (2023). Readers are encouraged to read the initial report should they require additional information. All findings presented here, as in the rest of this report, should be interpreted considering the caveats associated with Start G5 testing in 2021. In particular, Delaney et al. (2023) note that available evidence suggests that pupils in Ireland would probably have performed somewhat less well if they had been tested in spring.

In 2021, pupils in Ireland achieved a mean reading score of 577, which was statistically significantly higher than the mean scores of all other Start G5 countries and most End G4 countries. When comparing Ireland's results with those of End G4 countries, it is important to remember the above assumption; namely, that pupils in Ireland would probably have performed somewhat less well if they had been tested in spring. Therefore, while Ireland ranks high among PIRLS countries, caution is needed when comparing with End G4 countries.

Comparing mean achievement between 2016 and 2021, Start G5 pupils in Ireland in 2021 scored 11 points higher (rounded) than their End G4 peers in 2016, a statistically significant increase. Again, the effect of the move to autumn testing is likely to be a contributing factor, so we cannot conclude definitively that reading achievement in Ireland truly improved between 2016 and 2021. However, while we expect that average performance would have been somewhat lower in spring, it seems unlikely that this difference would have been extreme. Therefore, a cautious interpretation is that average reading achievement in Ireland has at least remained roughly stable between these time points.

Looking at the distribution of achievement, Ireland's lowest-achieving pupils (5th percentile) outperformed those in most reference countries, except Hong Kong. Similarly, Ireland's highest-achieving pupils (95th percentile) performed better than the highest-achieving pupils in many reference countries, although performance was higher in Singapore and similar in Northern Ireland. The range of Ireland's distribution was slightly wider in 2021 than 2016, with the main changes being observed at the higher end of the distribution, with achievement at the 95th percentile rising by 15 points in 2021. Although there was also an increase observed among the lowest-achieving pupils (5th percentile), this was smaller and not statistically significant.

The PIRLS International Benchmarks provide another way to explore the distribution of pupils' achievement. Four benchmarks are defined relative to specific reading skills that pupils can apply successfully. In 2021, almost all of the Start G5 pupils in Ireland (98%) reached the Low Benchmark (the lowest level comprised by pupils who can consistently demonstrate relatively limited reading comprehension skills when reading easier texts), and a large majority (91%) also reached the Intermediate Benchmark. Two-thirds (67%) reached the High Benchmark, while over a quarter (27%) reached the Advanced Benchmark. This compares favourably with performance at the benchmarks among the reference countries, with only Singapore reporting a higher percentage of pupils at the Advanced Benchmark. The percentages reaching the Low and Intermediate Benchmarks in Ireland did not change statistically significantly between 2016 and 2021. However, there were statistically significant increases at the High Benchmark (5%) and the Advanced Benchmark (6%).

Girls statistically significantly outperformed boys in Ireland in PIRLS 2021, with a mean advantage of 11 points (rounded) (583 vs 573).[10] This gap was small relative to the international average (17 points) and the gaps in many reference countries. It was also similar in magnitude to the gap observed in Ireland in 2016 (Eivers et al., 2017), and mean achievement increased statistically significantly between cycles for both boys (+12) and girls (+11). While caveats regarding trend comparisons do not allow for conclusions that performance among either group has truly improved, it seems likely to have at least held stable for both.

Most PIRLS pupils in Ireland attended non-DEIS (Delivering Equality of Opportunity in Schools)[11] schools (78.3%), while 10.9% attended DEIS Urban Band 1 schools (designated as most disadvantaged), 6.9% attended DEIS Urban Band 2 schools, and 3.9% attended DEIS

10 In the initial report by Delaney et al. (2023), gender is analysed on the basis of how pupils described themselves. In Ireland, 50.6% selected the option *boy,* 47.5% selected *girl*, and 1.9% selected *other* (an option not presented in previous PIRLS cycles). In the initial report, mean achievement is not reported for the group selecting other as the small number of pupils comprising the group results in a large margin of error. This is the approach also used in this report. This differs from the PIRLS international report, which uses a binary variable based on school reports of pupils' gender (Mullis et al., 2023). It also differs from previous PIRLS reports for Ireland. However, the outcomes for boys versus girls are virtually identical whether the pupil self-report variable or the school-report variable is used for gender analysis.

11 The DEIS programme classifies schools according to the level of disadvantage of their population and allocates resources accordingly (Department of Education and Skills, 2017b).

Rural schools.[12] Mean achievement in DEIS Urban Band 1 schools and DEIS Urban Band 2 schools was statistically significantly lower than mean achievement in non-DEIS schools, by 56 points and 40 points, respectively. These echo the findings from PIRLS 2016 (Delaney et al., 2022), with the achievement gaps somewhat wider in 2021, but not statistically significantly so. Due to smaller sample sizes and resulting error margins, caution is warranted when interpreting the estimate of mean achievement of pupils attending DEIS Rural schools, and definitive conclusions about their relative performance cannot be drawn.

Using a new PIRLS scale that provides an individual measure of socioeconomic status based on books on the home, parents' education, and parents' occupation, it was found that mean socioeconomic status in Ireland was relatively high compared to many other countries, and there was a close association between individual socioeconomic status and school DEIS status, as expected. In Ireland and internationally, pupils with higher socioeconomic status performed statistically significantly and substantially better, on average, than their peers with middle and lower socioeconomic status. The mean advantage in Ireland of pupils with higher socioeconomic status over those with lower socioeconomic status was similar to the average gap internationally, but, notably, was larger than in all reference countries except Singapore.

Schools in Ireland generally provided a range of supports for remote learning during the closure period in early 2021, based on school principals' and parents' reports. Evidence also indicates that many pupils may have read more than usual during lockdown, both for educational purposes and personal enjoyment and both on paper and on screens. This relatively increased engagement with reading may be associated with sustaining and/or enhancing pupils' reading comprehension skills and, thus, with Ireland's strong overall performance in PIRLS.

A substantial portion of both parents and teachers acknowledged that pandemic-related disruptions had impacted PIRLS pupils' learning to varying degrees. Notably, pupils whose parents and teachers perceived them as less affected performed relatively better in PIRLS, on average. For a slight majority of pupils, a school-based summer programme was not available in 2021. For pupils whose schools ran a summer programme, there was typically some emphasis on literacy, although participation from PIRLS pupils was relatively low, according to teachers' reports. However, in autumn 2021, over half of PIRLS pupils were in classes that were taking part in an initiative to foster wellbeing, while initiatives to promote physical education, social interaction, literacy, and numeracy were also relatively common. This suggests a generally high focus in schools on mitigating negative effects of the closure periods. Despite the challenges posed by the COVID-19 pandemic, teachers generally reported a high sense of occupational wellbeing. However, it is worth noting that a notable minority expressed feelings of underappreciation on a regular basis.

At the time of testing, pupils in Ireland reported higher levels of tiredness and hunger on arrival at school than the levels reported in spring 2016. They also reported a higher incidence of experiencing bullying behaviours. Together, these observations suggest that at least some aspects of pupils' wellbeing have declined between 2016 and 2021. Also, in 2021, pupils appeared to like reading somewhat less than in 2016, and to spend a little less time reading outside school.

12 While PIRLS sampling considered the four categories of DEIS to achieve representative samples of pupils, the percentages of pupils across these categories in the PIRLS sample differ slightly from those in the overall population due to changes in the school measure of size between the creation of the sampling frame and the time of testing.

While the initial report analysed only a selected few contextual variables, focusing on aspects of pupils' experience thought likely to have been impacted by the COVID-19 pandemic, the present report includes more in-depth analysis of a wider selection of contextual variables.

About this report

As mentioned earlier in this chapter, the primary focus of this report is on the contexts for the reading achievement of primary school pupils in Ireland, as captured by PIRLS 2021. Specifically, it describes the reading-related experiences, attitudes, and behaviours of participating pupils, along with relevant contextual information as provided by these pupils' parents, teachers, and school principals. In doing so, it examines the relationships of selected pupil, home, class/teacher, and school characteristics with the reading achievement of primary school pupils in Ireland.

The remainder of this report is structured as follows:

- **Chapter 2** sets the policy context, outlining the developments related to reading literacy before and during the PIRLS 2021 implementation, the results from other national and international assessments, and the COVID-19 context. Key questions of interest for this report are also delineated in this chapter.

Findings are presented in Chapters 3, 4, 5, 6, 7, and 8, where data for Ireland are generally examined: (i) in an international comparative context, (ii) in relation to the previous PIRLS cycles in 2011 and 2016, and (iii) by pupil, home, class, teacher, and school characteristics.

- **Chapters 3 through 5** focus on reading achievement by pupil and home characteristics (Chapter 3), class and teacher characteristics (Chapter 4), and school characteristics (Chapter 5)
- **Chapter 6** describes the profiles of low-, medium-, and high-achieving pupils in reading
- **Chapter 7** considers pupils' wellbeing, school-related experiences, reading attitudes and behaviours
- **Chapter 8** describes the educational experiences of pupils during the COVID-19 pandemic
- **Chapter 9** synthesises the findings from the preceding chapters in light of existing, relevant literature, discussing potential policy implications and provides recommendations for future research

For each chapter containing analyses, an e-Appendix is available in Excel format, providing unrounded data and additional details, such as confidence intervals and statistical test results. The e-Appendices can be downloaded from www.erc.ie/pirls/reports.

Selected reference countries

For this report, a subset of participating countries has been carefully selected as being of particular interest to readers in Ireland, mirroring the approach taken in the PIRLS 2021 national report (Delaney et al., 2023) (Table 1.2). The education systems of these countries are considered likely to provide useful points of reference for Ireland because they have relatively high performance in PIRLS 2021 and/or share some linguistic or cultural similarities with Ireland. Additionally, all of the selected countries successfully met the PIRLS guidelines for sample

participation.[13] However, given that some of these countries tested at End G4 (and, in two cases, one year later than planned), and also that some administered the test digitally rather than on paper, considerable caution is needed when drawing comparisons between their experiences of PIRLS relative to Ireland's. Among the selected reference countries, Northern Ireland offers the most direct parallel for Ireland, as it also assessed pupils at Start G5 and on paper.

Findings for the reference countries are presented based on (i) the time of testing and (ii) the test mode. Countries are listed alphabetically within each subgroup, with italics used to denote those that tested on computer.

Table 1.2: Selected reference countries by time of testing, mode of assessment, and reason(s) for selection

Time of testing	Mode	Country	Reason(s) for selection
Start G5	Paper	Ireland	N/A
		Northern Ireland	High performance; linguistic and cultural similarity; same time of testing; same mode
	Digital	*Croatia*	High performance; same time of testing
		Lithuania	High performance; same time of testing
End G4	Paper	Australia ⋈	Linguistic and some cultural similarity; same mode
		England ⋈	High performance; linguistic and some cultural similarity; same mode
		Hong Kong SAR	High performance; same mode
		Poland	High performance; some cultural similarity; same mode
	Digital	*Finland*	High performance
		New Zealand	Linguistic and some cultural similarity
		Singapore	High performance; linguistic similarity (tests in English)

Note. Adapted from *PIRLS 2021: Reading results for Ireland* (p. 9), by E. Delaney, S. McAteer, M. Delaney, G. McHugh, & B. O'Neill, 2023, Educational Research Centre. Reprinted with permission.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Understanding the analyses

The notes in this section can be used to help interpret the results in this report.

Achievement scores

Reading achievement in PIRLS is measured on a scale with a centrepoint of 500 (the average achievement across participating countries in the first cycle in 2001) and a standard deviation (SD) of 100. This means that, in 2001, approximately 95% of pupil scores internationally fell between 300 and 700 (i.e., 500 ± 2*SD*). While the centrepoint remains constant across PIRLS cycles, it does not represent the international average for each cycle (other than the first one). In all PIRLS cycles to date, most participating countries have achieved mean scores statistically significantly above the international centrepoint.[14] However, the centrepoint provides a stable point of reference against which to assess changes in achievement over time.

When interpreting achievement results on the PIRLS scale, as a rule of thumb, a difference of two or three points between the mean scores of different groups is unlikely to be statistically

13 Countries that met the IEA's participation guidelines only after using replacement schools were considered for inclusion as reference countries. However, countries that did not meet the guidelines even after replacement were not considered.

14 Even in 2001, when 500 represented the average of the mean scores of participating countries, only 10 of the 35 participating countries scored statistically significantly below the centrepoint, with some of these being outliers (Mullis et al., 2003).

significant. In simpler terms, we generally cannot say with confidence that a difference of this magnitude represents a "real" difference (see the sections on statistical significance and confidence intervals, below, for further information about interpreting differences between mean scores).

When a subgroup within a country comprises less than 2.5% of the population, their estimated mean achievement is not reported. This decision is made because the error margins tend to be large when dealing with small sample sizes, making it challenging to draw accurate conclusions.

In this report, achievement scores are weighted. This means that they are adjusted to be representative of the target population (all pupils at the relevant grade level in a country), not just the specific sample that participated.

Percentages

Percentages are used to report various pupil, home, class/teacher, and school characteristics in this report (e.g., the percentage of pupils in Ireland within each category of the *pupil absence* variable). Percentages are also used to describe pupils' responses to individual questionnaire items, including to classify their outcomes on context questionnaire scales (which are computed based on responses to multiple questionnaire items). For example, drawing on internationally developed cut points on the PIRLS *Students Like Reading* scale, we can describe the percentages of pupils in Ireland who reported that they *very much like*, *somewhat like*, and *do not like reading*. It is important to note that when interpreting these percentages—especially when making comparisons across cycles—potential caveats arise due to variations in the questionnaire items used to compute these scale categories. Such variations are acknowledged within the report. As with achievement scores above, percentages in this report are also weighted. This means that they are adjusted to be representative of the target population (all pupils at the relevant grade level in a country), not just the specific sample that participated.

Statistical significance

A statistically significant difference between groups indicates that it is unlikely to have occurred by chance. In this report, references to statistically significant or not statistically significant differences are based on statistical significance tests conducted using the 95% confidence level. These tests account for both measurement and sampling error in the statistical comparisons. When multiple comparisons are made within one analysis, adjustments are made to the critical value using the Bonferroni correction. For example, when performance of pupils in non-DEIS schools is compared with that of pupils in DEIS Urban Band 1, DEIS Urban Band 2, and DEIS Rural schools, meaning that three comparisons are made, the alpha level of .05 is divided by the number of comparisons (here, three), resulting in an adjusted alpha level of .0167.[15] Statistical significance does not necessarily imply substantive or meaningful significance. Readers are encouraged to consider the real-world context when interpreting reported differences.

Measures of uncertainty

Standard errors (SE): Estimates of group-level characteristics are influenced by both sampling error and measurement error. To quantify this error, when a mean achievement score or percentage is estimated for a group (e.g., all pupils in Ireland, pupils in DEIS Urban Band 1 schools in Ireland), this value is accompanied by an estimated *SE*. The *SE* serves as an indicator of the level of uncertainty around the observed estimate. A smaller *SE* indicates a higher level of confidence that the observed value for the sample accurately reflects that of the population.

15 Analyses presented in the PIRLS 2021 international report (Mullis et al., 2023) are not adjusted for multiple comparisons.

For example, while the *SE* around the estimate of achievement for all pupils in Ireland is relatively small, the *SE* around the estimate of achievement for pupils in DEIS Urban Band 1 schools is larger, reflecting that the sample of pupils in this subset of schools is smaller and less representative. Due to spatial constraints, *SEs* are generally not presented in tables within the main body of this report, but can be found in the e-Appendices.

Confidence intervals (CI): If an infinite number of samples from a population were tested under constant test conditions on an infinite number of occasions, the observed mean scores would be expected to cluster around a "true" mean. Approximately 95% of these test occasions would yield mean scores falling within ±1.96 *SE* of the "true" mean. While this scenario is hypothetical, it can be inferred that there is a 95% chance that the observed mean score on an actual test occasion lies within ±1.96 *SE* of the unobservable "true" mean. Based on this principle, a 95% *CI* around the observed mean score can be created by (i) multiplying the estimated *SE* by 1.96 and (ii) subtracting and adding that result on either side of the observed mean. When comparing the observed mean scores for two populations, if the *CIs* around these means overlap, this is interpreted as indicating that the difference between the two means is not statistically significant.

For a quick approximation, the *SE* can be multiplied by 2 instead of 1.96. For example, if Country X has an observed mean score of 560, with an *SE* of 3, the 95% *CI* around this score are roughly 554-566. In essence, roughly 95% confidence can be attributed to the "true" population mean falling within this range (assuming that this *CI* is one of the 95% that contain the "true" mean). Comparing the mean score of Country X with that of Country Y (observed mean of 553, with *SE* of 1.5), Country Y's 95% *CI* around the observed mean is approximately 550-556. This overlaps with Country X's approximate *CI* of 554-566. Consequently, despite Country X's mean score being seven points higher than Country Y's, this difference is unlikely to be statistically significant.

Rounding

Achievement scores are rounded to whole numbers in this report, as are percentages. However, when calculating the difference between two mean scores or two percentages, unrounded data are used, and the difference is then rounded. Therefore, the reported difference may not exactly match the difference between the rounded scores presented. For example, a difference between mean scores of 560 and 570 might be reported as 11 points, if the unrounded mean scores are 559.6 and 570.4, resulting in a difference of 10.8 points. Similarly, reported percentages may not always sum to exactly 100% due to rounding. Unrounded data are available in the e-Appendices.

PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

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Chapter 2: Policy Context of PIRLS 2021 in Ireland

PIRLS 2021 took place following a decade of intensified emphasis on literacy within educational policy in Ireland. This included the rollout of the *National Strategy: Literacy and Numeracy for Learning and Life 2011-2020*, which covered the period up to and including 2020 (Department of Education and Skills, 2011b) and the redevelopment of the Primary Language Curriculum (PLC) for the first time since 1999 (Department of Education and Skills & NCCA, 2019). The growing importance of digital literacy was referenced both through the PLC and in the *Digital Strategy for Schools 2015-2020* (Department of Education and Skills, 2015). Since 2005, the DEIS programme has served as the main policy instrument geared at improving equity in education in Ireland. The need for an increased focus on literacy outcomes in DEIS Urban schools in particular was highlighted in the 2017 interim review of the *National Strategy: Literacy and Numeracy for Learning and Life 2011-2020* (Department of Education and Skills, 2017d), while the DEIS identification model was updated in the same year, resulting in some additional schools being identified as eligible for DEIS supports (Department of Education and Skills, 2017a).

We might reasonably expect the literacy-learning experiences of the PIRLS 2021 cohort to have been influenced to some degree by these various policy initiatives. However, their experiences will also have been coloured by unprecedented disruptions to education – and to wider society – caused by the COVID-19 pandemic in 2020 and 2021 (Department of Education et al., 2022). Sustained periods of school closures and remote teaching and learning were implemented from March to June 2020 (when the PIRLS cohort were finishing Third Class), and from January to March 2021 (when they were midway through Fourth Class). While schools were generally open for in-person instruction at other times, absence rates were higher than usual due to quarantine periods, and classroom arrangements were often adapted to reduce the risk of virus transmission. To address expected negative impacts of COVID-19 restrictions on children's learning and development, various mitigation measures were introduced, such as the provision of additional funding for digital technology (April 2020); the identification of priority curriculum areas, including literacy (September 2020); the expansion of the summer provision programme (July 2021); and the rollout of a COVID Learning and Support Scheme (CLASS) (September 2021).

This chapter discusses policy developments relating to primary-level literacy education in Ireland between 2011 and 2021, with a focus on those likely to have impacted on the PIRLS 2021 cohort (i.e., those starting Fifth Class in autumn 2021). The first section deals with initiatives introduced within the lifetime of the *National Strategy: Literacy and Numeracy for Learning and Life 2011-2020*. The second deals with the specifics of the COVID-19 era that immediately preceded the PIRLS 2021 data collection. The third considers the extent to which trends in PIRLS data can or cannot provide insights into the impacts of various policy initiatives, while the fourth sets out the key research questions addressed in this report.

National Strategy: Literacy and Numeracy for Learning and Life 2011-2020 – Developments in literacy education policy at primary level

The *National Strategy: Literacy and Numeracy for Learning and Life 2011-2020*, referred to in this section as the *2011 National Strategy* (Department of Education and Skills, 2011b), was developed partly in response to outcomes of the 2009 cycle of PISA, in which the reading achievement of 15-year-old students in Ireland showed an apparent sharp decline relative to previous cycles (Perkins et al., 2010). The *2011 National Strategy* sought to improve literacy and numeracy *outcomes* (at early childhood, primary, and post-primary levels) and *attitudes* (among children, young people, and the general public) through interventions in six key areas:

1. Resources and support for **parents and communities**
2. Professional learning for **early learning and care (ELC) educators and teachers**
3. Capacity-building for **school leaders**
4. Review and update of **curriculum** specifications
5. Targeted resources for **learners with additional needs** (examples listed: those from disadvantaged communities, those learning English as an additional language, and those with special educational needs)
6. More effective approaches to **assessment**, at teacher, school, and system levels

Most pupils in the PIRLS 2021 cohort were born either in 2010 (67.0%) or 2011 (31.6%) – i.e., shortly before or contemporaneously with the introduction of the *2011 National Strategy*. Thus, actions implemented at early childhood and primary levels may have affected them. Literacy-related actions targeted at these levels under each of the six key areas are summarised next. In considering the extent to which planned actions were implemented, we draw on the interim review of the *2011 National Strategy* (Department of Education and Skills, 2017d). A general observation from the interim review was that, overall, there had been a stronger focus on literacy than numeracy in the implementation of the *2011 National Strategy* to that point, although literacy through Irish and digital literacy were highlighted as requiring further attention.

The next subsections use the six key areas of the *2011 National Strategy* to structure a description of relevant actions. Subsequently, the relation of the *2011 National Strategy* to large-scale assessment findings is briefly discussed.

1. Parents and communities

The *2011 National Strategy* aimed to support a national information campaign to raise awareness of the role of parents and communities in fostering children's literacy learning (Department of Education and Skills, 2011b). In practice, a number of relevant actions were implemented, including the development of a website and television series by the National Adult Literacy Agency (NALA) and the launch of campaigns such as Right to Read (led by Libraries Ireland) and Take the First Step (led by NALA) (Department of Education and Skills, 2017d). However, these tended to be packaged more as discrete initiatives than as part of a continuous, unifying information campaign.

A related aim was to provide better information to parents on specific ways to support their children's language and literacy development. To this end, the interim review noted that materials from NALA's *helpmykidlearn* website were distributed in early learning and care (ELC)

settings. Other materials such as the Aistear Síolta Practice Guide[16] (Government of Ireland, 2015) and parts of the support toolkit for the PLC (Department of Education and Skills & NCCA, 2019), while designed primarily for ELC educators and/or teachers, were considered suitable for parents to use also (although it seems likely that parents with a pre-existing interest in education/literacy would be most likely to access and avail of these). Additionally, the National Council for Special Education (NCSE) produced a targeted Booklet for *Parents of Children and Young People with Special Educational Needs* which described educational supports available in schools (NCSE, 2019).

Schools were requested to work closely with parents to support children's literacy development. Specifically, reports of School Self-Evaluation (SSE) and School Improvement Plans (SIPs) (see the section on "School leaders" below) were to be made available to parents. While many schools implemented this at least to some degree, the interim review in 2017 noted that "the flow of information from schools to parents can still be improved" (Department of Education and Skills, 2017e, p. 24). Another new requirement was for schools to share children's standardised test results, including in English reading (in all schools) and Irish (in Gaeltacht schools and Gaelscoileanna) with parents (see the section on "Assessment" below) at certain intervals. While this requirement was met almost ubiquitously within a few years of its introduction (Kavanagh et al., 2015), appropriate context for interpreting the results was not always provided to parents, and concerns have been raised about parental confusion and anxiety regarding standardised testing (Martinez Sainz et al., 2023; O'Leary et al., 2019). More broadly, in the latter years of the *2011 National Strategy*, a review of school websites found that many did not comprehensively address parents' informational needs (Gilleece & Eivers, 2018), while parental participation in school self-evaluation in Ireland has been viewed as relatively limited in an international context (Brown et al., 2021). Overall, then, there may be scope for further improvement in the extent to which schools and parents work together to develop children's literacy.

2. Early learning and care (ELC) educators and teachers

The ELC landscape in Ireland had been altered substantially since 2010 with the introduction of a universally available, free year of ELC (i.e., shortly prior to the launch of the *2011 National Strategy*). Pupils in the PIRLS 2021 cohort were eligible for this free year, although they were already in primary school by the time the ELC programme was further expanded to two free years from 2016. To bolster the role of ELC in children's educational development, the Aistear Síolta Practice Guide was published (Government of Ireland, 2015), funding and regulatory incentives were brought in to encourage ELC educators to upskill, and education-focused inspections of ELC settings were commenced from 2016. A first composite report on such inspections noted a mixture of strengths and challenges in the sector. Support for language development was one aspect of practice about which recommendations for improvement were made fairly frequently (Inspectorate - Department of Education and Skills, 2018). In 2020, an Insights webinar on the development of literacy was published (Department of Education, 2020). Developed by the Department of Education's Inspectorate, it was designed to share the findings, ideas, and examples of effective literacy practice that had been gathered during inspection visits to thousands of diverse early years' education settings across Ireland. It introduced and explored the development of early reading, and using texts, oral language skills, mark-making and early writing, in a playful, hands-on manner.

The *2011 National Strategy* included several measures aimed at improving the literacy aspect

16 Aistear and Síolta are the National Quality Frameworks for Early Childhood Education. These frameworks were merged in the *Aistear Síolta Practice Guide* in 2015.

of Initial Teacher Education (ITE). All primary teaching qualifications in Ireland were lengthened by one year (to four years and two years for undergraduate and postgraduate candidates, respectively), and the emphasis placed on teaching, learning, and assessment of literacy within ITE was increased.

To enhance Continuing Professional Development (CPD) for qualified teachers, dedicated Literacy and Language teams were established within the Professional Development Service for Teachers (PDST)[17] and all online summer courses for teachers were required to incorporate literacy in their programmes. Data from the National Assessments of Mathematics and English Reading (NAMER) 2014 and PIRLS 2016 indicate a steep increase in uptake of literacy-related CPD by teachers, compared to previous study cycles in 2009 and 2011, respectively (Delaney et al., 2022; Kavanagh et al., 2015). Later, the rollout of the new PLC meant that associated CPD was provided, in the form of a one-day introductory seminar for all schools (2019-2020) and subsequent sustained support was delivered on a phased basis. Sustained support was paused during the COVID-19 pandemic, so it is likely that teachers in some, but not all, of the PIRLS 2021 schools had received this training by the time of testing. Additional pre-recorded webinars were also made available to support the embedding of the curriculum.

The interim review identified digital literacy as a priority area across the continuum of teacher education for the remaining years of the *2011 National Strategy* (Department of Education and Skills, 2017d). Specifically, in line with the *Digital Strategy for Schools 2015-2020*, teachers were to be supported to integrate digital literacy in learning across the curriculum. To support the *Digital Strategy*, a 210-million-euro funding package to help schools invest in education technology infrastructure (but not technical support/maintenance) was issued between 2017 and 2020. Nevertheless, by late 2019/early 2020 (Feerick et al., 2021), about one-third of primary teachers viewed as *poor* or *fair* the availability of digital devices for all their pupils (34%), the age and condition of devices (36%), their school's broadband connection or speed (32%), the availability of suitable software for teaching and learning (30%), and their own awareness of such software (33%). In the same survey, just 6% of primary teachers viewed themselves as *advanced* or *highly advanced* in relation to embedding digital technologies in teaching, learning, and assessment, while nearly three-fifths (59%) saw themselves as below intermediate level in this regard. The move to remote teaching and learning during COVID-19 demanded considerable agility from teachers in relation to use of digital technology, with evidence from Department of Education's Inspectorate surveys suggesting that considerable strides were made in this regard between the first school closure period in mid-2020 and the second one in early 2021 (Department of Education, 2021a).

3. School leaders

The *2011 National Strategy* sought to improve principals' and school leaders' understanding of effective approaches to literacy instruction and of how to use assessment to plan learning, diagnose learning difficulties, and provide evidence of learning (Department of Education and Skills, 2011b).

In addition to increasing the professional development available for principals and school leaders and enhancing the emphasis on literacy within it, a key action in this section of the *2011 National Strategy* was the introduction of a requirement for schools to engage in self-evaluation (SSE). Literacy, alongside numeracy, was to be a key focus of SSE between 2012 and 2016. In

17 Since 2023, the PDST has become part of Oide, an integrated support service to support the professional learning of teachers and school leaders in Ireland.

DEIS schools, a requirement to develop a three-year Action Plan for Improvement in relation to several themes, including literacy, had been in place since 2005, with this requirement now constituting the SSE process for these schools (Department of Education and Skills, 2016).

A survey conducted in the 2014/2015 school year, and referenced in the interim review, found that 95% of primary schools had prepared SSE reports and compiled SIPs, respectively. However, a smaller proportion (66%) had made these documents available to the whole school community. While it was acknowledged that SSE would take time to become fully embedded in school practice in Ireland, the interim review noted progress in this area, especially in literacy ("it was perhaps to be expected that most schools initially focused on literacy initiatives, followed by numeracy") (Department of Education and Skills, 2017e, p. 33). Nevertheless, other research has suggested considerable variation in how SSE has been received and implemented in schools (e.g., Brown et al., 2016).

4. Curriculum

From 2012, Circular Letter 0056/2011 required primary schools to increase by one hour per week the time spent on the development of literacy skills, particularly in the first language of the school (Department of Education and Skills, 2011a). For pupils in First to Sixth Class, this brought the weekly time allocated to English and Irish language combined from 7.5 hours (as allocated in the 1999 Primary School Curriculum) to 8.5 hours. An increase of just over an hour per week was also required for mathematics, meaning that teachers were to re-allocate a total of more than two hours per week to literacy and numeracy. Suggested mechanisms for achieving this included integration of the relevant skills with other curriculum areas, using discretionary curriculum time, re-allocating time spent on other subjects, and "prioritising the curriculum objectives which are considered most valuable in supporting children's learning", including by delaying the introduction of elements considered to be lower-priority in some subjects (Department of Education and Skills, 2011a, p. 4). Evidence from NAMER 2014, TIMSS 2015, and PIRLS 2016 suggests that, by and large, teachers were meeting or exceeding these revised time allocation requirements by the midpoint of the *2011 National Strategy*'s lifetime (Clerkin et al., 2017; Delaney et al., 2022; Kavanagh et al., 2015). While there is an absence of data on time allocated in practice to most other subject areas, a decline in science instructional time was observed in TIMSS 2015, suggesting that schools had probably re-allocated time spent on other subjects to literacy and numeracy.

A longer-term project that began during the lifetime of the *2011 National Strategy* and continues at the time of writing involved the full redevelopment of the primary curriculum – the first such redevelopment since 1999. Consistent with the priorities identified in the *2011 National Strategy*, the language and mathematics curriculum specifications were prioritised for review. In 2015, a new PLC was introduced for Junior Infants to Second Class, replacing separate specifications for English and Irish with an integrated specification that sought to foreground the transferability of literacy skills and strategies across languages (NCCA, 2015). Following further consultation, an updated version of the PLC for all primary grade levels was rolled out in 2019 (Department of Education and Skills & NCCA, 2019). As the majority of the PIRLS 2021 cohort started school in autumn 2015, they should, in theory, have received literacy instruction entirely through the lens of the PLC (under the draft specification for junior classes from Junior Infants to Second Class [2015-2016 to 2018-2019] and under the full specification from Third Class to the point of PIRLS testing at the start of Fifth Class [2019-2021]). This contrasts with the situation for PIRLS cohorts from the 2011 and 2016 cycles, both of whom received literacy instruction through the lens of the 1999 curriculum.

While the PLC is in some ways continuous with its predecessors, it also involves new approaches and changed emphases. As there is not scope to explore these in detail here, we provide a very brief overview of selected key points. First, as well as providing an integrated specification for English and Irish, the PLC foregrounds the value of *all* languages, including children's home languages, and the related opportunities for knowledge transfer. Second, in an effort to redirect the focus from teachers to pupils, the PLC replaces the "content objectives" of the 1999 curriculum with far fewer "learning outcomes". Third, the PLC includes an online "toolkit" for teachers featuring support materials, descriptions of learning trajectories ("progression continua"), and video-based examples of good practice. Fourth, a wide-ranging definition of "text" as including "all products of language use: oral, gesture, sign, written, braille, visual, tactile, electronic and digital" points to an expansion of the kinds of communication and interpretation seen as relevant to literacy development (Department of Education and Skills & NCCA, 2019, p. 9). Fifth, the PLC includes a stronger emphasis than its predecessors on the social and playful dimensions of literacy, as well as engagement, motivation, and choice. Sixth, critical literacy skills are introduced earlier and accorded greater weight in comparison with the 1999 curriculum.

Digital literacy is recognised in the PLC as "an important aspect of children's learning", and is at least implicitly integrated within many learning outcomes due to the fact that "text" is defined as including electronic and digital texts (Department of Education and Skills & NCCA, 2019, p. 50). However, a separate document, the Digital Learning Framework (DLF) (Department of Education and Skills, 2017c), itself an element of the *Digital Strategy for Schools 2015-2020*, describes in greater detail some kinds of digital literacy that children are expected to acquire across all areas of the curriculum, including language. The DLF is designed to support schools to plan and assess progress in digital learning as part of their SSE. Among its "statements of highly effective practice" are several that link with critical literacy in the digital realm – for example, that "pupils use a variety of digital technologies for knowledge creation to source, critique, and manage information and to reflect on their learning" (Department of Education and Skills, 2017c, p. 6).

Feedback from teachers prior to the release of the full PLC indicated that aspects of earlier draft versions were found by some to be confusingly worded and/or challenging to use (NCCA, 2014, 2018). While considerable efforts were made to address these issues in the finalised PLC, relatively little has been published to date about the extent to which the PLC as enacted in classrooms may differ from the PLC as intended, or the extent to which enactment of the PLC may vary between classrooms and schools. It is also worth bearing in mind that the PLC's rollout was atypical: while all schools had access to a one-day introductory seminar shortly after its launch, the delivery of a large-scale "sustained support" programme to facilitate its embedding was interrupted due to COVID-19, with online resources substituted for face-to-face support between March 2020 and September 2021.

5. Learners with additional needs

Under this pillar, the *2011 National Strategy* focused primarily on four groups of students with additional needs: (i) those attending schools with high concentrations of social and economic disadvantage; (ii) those whose parents are migrants with a first language other than English or Irish; (iii) those with special educational needs, including the exceptionally able; and (iv) those who have dropped out of school early. Here, we deal with the first three categories as early school-leavers are more relevant in the post-primary than primary context.

The DEIS programme, first launched in 2005 to provide additional resources and supports to schools with more disadvantaged populations, continued to be a key policy response to the needs of the first group (and, to some extent, of the second group also, given that students from

migrant families are often clustered in such schools – e.g., Byrne et al., 2010). At primary level, schools that serve communities assessed as having high levels of deprivation are classified as DEIS Urban Band 1 (the highest level of urban deprivation, to which the highest level of support is allocated), DEIS Urban Band 2, or DEIS Rural. Supports include DEIS grants and access to additional supports for planning and professional development. At the time of testing, other supports that were specific to DEIS schools (but have since been expanded) included book grants and access to the *School Meals Programme*. In DEIS Urban schools, further supports are available, including access to the *School Completion Programme*, Home School Community Liaison (HSCL) Coordinators, and – in DEIS Urban Band 1 schools – reduced pupil-teacher ratios.

As part of the DEIS Plan 2017 (Department of Education and Skills, 2017b), a new model was introduced to identify schools eligible for DEIS supports. This model used the Pobal HP Deprivation Index (Haase & Pratschke, 2017) to assign a probable level of disadvantage to each student based on the small area in which their home was located. Although a decision was taken not to drop any 2005-identified schools from the DEIS programme, regardless of their indicated deprivation level under the new model, 65 primary schools were newly admitted, while about 30 schools already in the programme were assigned to a higher level of support.[18]

Regarding the specific needs of students with one or more home languages other than English or Irish, the allocation of teaching posts specifically to support English as an Additional Language (EAL) had been subject to a reduction in 2009 in the context of an economic crisis and resultant budget cuts. The *2011 National Strategy* proposed a redistributed resourcing model that would further reduce the numbers of additional teachers recruited specifically to support EAL, while increasing the emphasis on EAL within ITE and CPD, with the aim of improving whole-school approaches to EAL. This proposal drew on a value-for-money review which had found that the vast majority of EAL funding was spent on additional teachers' salaries with very little spent on CPD (Department of Education and Skills, 2011, as cited in Eivers, 2013).

In practice, the solution implemented involved a broader restructuring of the model whereby posts were provided to support pupils with particular learning needs. Previously, posts for learning support (for pupils with special educational needs) and language support (for pupils learning English as an additional language) had been provided under separate allocations, whereas from 2012 such posts were provided within a combined allocation. Within their allocation, schools had the autonomy to allocate resources to learning support and language support as they saw fit (Department of Education and Skills, 2012). While resource posts to support pupils diagnosed with "low incidence disabilities" continued to be provided for separately at first, a further reform saw these, along with learning support-language support posts, brought within a single Special Education Teacher (SET) allocation from 2017. This SET allocation model was intended to improve equity and access by (i) removing the requirement for pupil assessments to access resource hours (with associated delays, along with the risk that diagnosis might sometimes be conferred for the purpose of resource allocation rather than medical need); (ii) drawing on data intended to be indicative of the specific profile of need within each school, such as standardised test results, rather than simply measures of school size and/or specific categories of special educational needs present, as used previously (Department of Education and Skills, 2017a).[19]

18 Since then, further refinement of the model has led to a larger-scale expansion of the programme. However, as this took place from 2022 on, it is not relevant to our consideration of policies that may have impacted on the PIRLS 2021 cohort.

19 From 2022 on, the New Entrant Allocation Scheme provided additional EAL resources to schools in response to the arrival of large numbers of children from Ukraine. However, as this took place after the PIRLS 2021 data collection, it is not relevant to our consideration of policies that may have impacted on the PIRLS 2021 cohort.

While exceptionally able pupils were explicitly included in the *2011 National Strategy*'s reference to those with special educational needs, the interim review noted that there was little evidence of progress at national level in this regard (Department of Education and Skills, 2017d). A proposal to produce an updated set of national guidelines on addressing the needs of this group has not yet been enacted; however, the needs of exceptionally able pupils are emphasised in Ireland's new *Literacy, Numeracy and Digital Literacy Strategy 2024-2033* (Department of Education, 2024b) and a Departmental group has been established and research initiated to explore the needs of this group.

6. Assessment

A significant departure in the *2011 National Strategy* was the introduction of a requirement for primary schools to administer standardised tests of reading and mathematics at three grade levels (Second, Fourth, and Sixth Classes), to report results to parents, and to report aggregated results to Boards of Management and the Department of Education. While standardised tests had been available for some time previously, schools had varied in the extent to which they had opted to engage with them, and there had been no oversight of test results at national level. The interim review (Department of Education and Skills, 2017d) noted that, while there was good adherence to the new requirement, teachers required professional development in relation to administering standardised tests and interpreting the results. This finding is also evident in other research, such as that conducted by O'Leary et al. (2019) – who identified particular interpretative challenges in relation to standardised test results in DEIS schools and for children with special educational needs – and Pitsia et al. (2021).

It was intended that schools could use standardised test results, along with other assessment data, within the framework of SSE. Alongside SSE, external inspection was noted as an important mechanism for evaluating literacy (and numeracy) provision in schools. The interim review (Department of Education and Skills, 2017d) noted that, since 2012, inspections at both primary and post-primary level indicated that learning outcomes in English (although less so Irish) tended to be highly satisfactory – perhaps reflecting a trend, mentioned above, for schools to focus on literacy more than numeracy in their initial SIPs as part of SSE.

Alongside an increased emphasis on standardised testing within schools, the *2011 National Strategy* included a commitment that Ireland would participate in large-scale national and international assessments (the latter including PIRLS, as well as TIMSS and PISA) to facilitate monitoring of progress and benchmarking of achievement against that of students in other countries. Further, to ensure the robustness and representativeness of the resulting data, schools sampled for such studies were advised that they were expected to participate.

Finally, specific targets for improvement were set based on data from NAMER (at primary level) and PISA (at post-primary level). These targets sought to reduce the proportion of low-achieving students and to increase the proportion of high-achieving students across literacy and numeracy. Following unexpectedly positive outcomes from large-scale assessments conducted between 2014 and 2016 – described in the next section – more ambitious targets to 2020 were established, which included targets specific to students in DEIS Urban Band 1 primary schools (and DEIS post-primary schools).

Monitoring progress in literacy under the *2011 National Strategy*: Findings from large-scale assessments

Although the *2011 National Strategy* targets were originally established as goals to 2020, all primary-level targets were met earlier than anticipated in NAMER 2014, in which overall reading

performance was statistically significantly higher than that in NAMER 2009. The target to reduce by at least five percentage points the proportion of "low achievers" in reading (those at or below proficiency level 1) was exceeded at both Second Class and Sixth Class (reductions of 13 and 10 percentage points, respectively). The target to increase by at least five percentage points the proportion of "high achievers" in reading (those at or above proficiency level 3) was also exceeded at both Second Class and Sixth Class (increases of 11 and nine percentage points, respectively) (Shiel et al., 2014). These encouraging findings were supported by the outcomes of PIRLS 2016, in which pupils in Ireland achieved a mean reading score statistically significantly higher than that achieved in PIRLS 2011 and were outperformed by pupils in only two participating countries (Eivers et al., 2017).

A reconsideration of the targets was therefore considered appropriate as part of the interim review of the *2011 National Strategy* in 2017. In reading, it was desired to further reduce the proportion of "low achievers" to 20% or less at each grade level (from 22% and 25% at Second and Sixth Class, respectively, in NAMER 2014). It was also desired to increase the proportion of "high achievers" to 50% at each grade level (from 46% and 44% at Second and Sixth Class, respectively, in NAMER 2014).

In DEIS Urban Band 1 schools, mean reading achievement remained lower overall than in other school types in NAMER 2014 and PIRLS 2016 (Delaney et al., 2022; Shiel et al., 2014). To focus attention on the need to improve literacy levels in DEIS Urban Band 1 schools, the interim review established tailored targets to 2020 for these schools: namely, to reduce the proportion of "low achievers" to 40% or less (from 44% and 47% at Second Class and Sixth Class, respectively, in NAMER 2014), and to increase the proportion of "high achievers" to 25% or more at Second Class (from 18% in NAMER 2014) and 27% or more at Sixth Class (from 21% in NAMER 2014) (Department of Education and Skills, 2017d).

In 2020, officially the final year of the *2011 National Strategy*, no large-scale assessment data were collected in Ireland. Therefore, NAMER 2021 provided a first opportunity to examine progress in relation to the revised targets, while PIRLS 2021 provided an internationally contextualised perspective. Due to the impact of COVID-19, the reading component of NAMER was administered at Second Class only. Most revised targets for this level were not met, although the target to increase the proportion of "high achievers" within DEIS Urban Band 1 schools to 25% was met. However, average reading achievement did not differ statistically significantly in NAMER 2021 compared to 2014, and the original targets met in 2014 were also met in 2021 (Kiniry et al., 2023; Nelis & Gilleece, 2023).

The PIRLS 2021 results, as described in Chapter 1, painted a similar overall picture: while the necessary caveats meant that there was not sufficient evidence to conclude that mean reading performance had truly improved in Ireland since 2016, the overall standard observed in 2021 was at least as high as that observed in the previous cycle. Within an international context, this pattern was unusual: a majority of trend countries saw statistically significant declines in their mean reading achievement between 2016 and 2021, although this was particularly the case for countries that tested in spring 2021 (unlike Ireland) (Delaney et al., 2023; Mullis et al., 2023).

Examining the outcomes of recent NAMER and PIRLS cycles together, it appears that there was a statistically significant improvement in reading achievement at primary level between 2011 and the middle of that decade (NAMER 2014 and PIRLS 2016), while progress made to then was retained, if not further built upon, in 2021. However, as both NAMER and PIRLS are cross-sectional studies – i.e., each cycle represents a snapshot taken at a specific moment – we cannot

know what shape the trajectory between 2014/2016 and 2021 took. It may be that average reading achievement in Ireland remained roughly similar (a "flat line") between these time points. Equally, it may be that there was fluctuation not captured by large-scale assessments. For example, it is possible that reading achievement could have improved between 2014/2016 and 2019 and fallen back to somewhere close to 2014/2016 levels in the wake of COVID-19-related disruptions, discussed in the next section.

This uncertainty notwithstanding, it is clear that reading achievement in primary schools in Ireland was higher overall in 2021 than at the starting point of the *2011 National Strategy*. Given the intervention of COVID-19, this seems a positive outcome. It is not possible to conclude that actions implemented under the *2011 National Strategy* caused the improvements observed in NAMER 2014 and PIRLS 2016 – and maintained in NAMER 2021 and PIRLS 2021. However, it should be recognised that the *2011 National Strategy* was a driving force in literacy policy in Ireland during the time when these changes occurred.

COVID-19: The impact and response in primary schools (2020-2021)

March – June 2020: The first lockdown

From March 13, 2020, emergency measures to slow the spread of the COVID-19 virus came into effect in Ireland. These included the physical closure of all schools. There was considerable uncertainty around the expected duration of this closure; in the end, schools would not reopen until the start of the new school year in September 2020. Between March and June 2020, schools were requested to provide remote teaching and learning. The majority of countries around the world also implemented full school closures during this period (UNICEF, 2021). For the PIRLS 2021 cohort in Ireland, this first lockdown coincided with the final months of their Third Class education.

Remote instruction on a large scale was unprecedented in Ireland (as in most countries). In early April 2020, the Department of Education and Skills (hereafter referred to as Department of Education, reflecting its updated name) issued initial guidance for staff of both primary and post-primary schools, which drew on feedback from a number of staff surveys conducted in the earliest days of the lockdown (Department of Education and Skills, 2020a). This guidance noted the importance of trying to foster a sense of normality and continuity for students; recommended "a balance between the assignment of independent work, whether written or practical, online learning and other tasks in accordance with the learning needs of students and the resources available" (p. 3); and advised that, where possible, primary teachers should make every effort to engage with their students on a daily basis. Specific approaches referenced – based on what schools that had responded to surveys reported doing – were phone and email contact; assigning independent work via email, the school website, or online tools/ apps; devising tasks linked to learning opportunities in television programmes (notably, those programmes established by public service broadcasters specifically to support remote learning, i.e., Home School Hub and Cúla 4 ar Scoil, as well as documentaries); hosting school assemblies on local community radio or similar platforms; and using video conferencing software to conduct virtual lessons. Teachers were expected to use their professional judgement to select suitable online resources for their pupils' contexts. Signposting was provided to a one-hour course developed by the PDST to support them to teach and facilitate learning online. The challenges posed to students' wellbeing by the closures and the wider pandemic context were highlighted, with signposting provided to information developed by the National Educational Psychological Service (NEPS) in relation to student wellbeing.

Further guidance provided by the Department of Education in late May 2020 was geared specifically at primary schools (Department of Education and Skills, 2020b). It referenced a mid-May change in policy that allowed teachers to access school buildings under some circumstances, meaning that they could now access school IT resources and organise and distribute learning materials. Perhaps reflecting emerging information about remote learning experiences, the previous recommendation of daily contact was attenuated slightly, with teachers now encouraged to "where possible, […] engage with […] pupils on a daily basis or at least a number of times each week" (p. 7). Both the April and May documents articulated an awareness of the potential for *too* much assigned schoolwork to exacerbate pupils' and parents' stress during a period of national and international crisis. Standardised testing was cancelled, while schools were encouraged to arrange remote alternatives to end-of-year traditions such as school tours, sports days, and graduation ceremonies.

A survey of primary school parents conducted in April 2020 by the National Parents Council, in collaboration with the Department of Education, indicated that there was considerable variation in perceived experiences. Sixty-five percent of parents indicated that their child's school made contact more than once a week, while 43% agreed that their child received regular and practical feedback from their teacher on work completed – suggesting that contact and feedback levels overall were substantially lower than those suggested in the guidance. On the other hand, there was stronger agreement that children had established good routines for keeping up with schoolwork (78%) and that children read or were read to regularly during this period (a strikingly high 91%, although respondents to the survey may not have been a representative group) (Department of Education, 2021b – see Appendix [p. 24] for results of the 2020 survey).

A review of research conducted both in Ireland and internationally during this early phase of the COVID-19 pandemic suggested that children were likely to suffer negative impacts including learning loss, increased anxiety, and isolation from friends and normal occupations, with children from more disadvantaged homes and those with special educational needs likely to be more severely impacted (Darmody et al., 2020). Within the Irish primary context specifically, surveys conducted between March and May 2020 indicated relatively high engagement of school staff with pupils and families via email and various apps, but relatively low usage of online lessons. Perhaps relatedly, the prevalence of suitable digital devices for remote learning varied among primary school pupils, as did access to broadband and the extent to which an adult or adults in the home were available to help with schoolwork (J. Burke & Dempsey, 2020; Doyle, 2020; Symonds et al., 2020). Unsurprisingly, pupils with better resources for home schooling reported better engagement with it (Chzhen et al., 2022). Subsequent research with 12-year-olds in Ireland found that just under three-quarters reported having access to a suitable computer during remote learning in March-June 2020, while only half reported having a quiet place to study. The relationship of socioeconomic status with the "digital divide" was evident, with internet connection, device quality, and suitability of study environment all poorer among pupils with low socioeconomic status (Murray et al., 2021).

At primary level, early efforts to mitigate potential harms caused by this first period of school closures included the release of an extra three-million-euro funding package to enable schools to purchase additional digital devices for pupils, the early release of DEIS grants for the 2020-2021 school year, and promotion of the summer programme (Department of Education and Skills, 2020f, 2020g, 2020h). The summer programme, which is opt-in at school level, encompassed two to four weeks of additional education for pupils with various categories of special educational needs, as well as one-week summer camps focusing on literacy, numeracy, and wellbeing for pupils in DEIS schools. Records indicate that 13,608 pupils with special

educational needs participated in the summer programmes in 2020 (3,045 more than in 2019), while about 7,000 participated in the DEIS summer camps (4,500 more than in 2019) (Department of Education, 2022c).

September – December 2020: The first return to the classroom

In July 2020, ahead of the reopening of schools in September – when the PIRLS 2021 cohort in Ireland would start Fourth Class – the Department of Education published *Reopening our schools: The roadmap for the full return to school* (Department of Education and Skills, 2020d). In the context of the continuing risk of a spike in COVID-19 infections, the document noted the need for an overall approach that would "balance the need for a practical and sensible level of caution with the need to provide a supportive environment for pupils/students and where teachers feel able to engage with pupils in a way that supports their learning" (p. 7). In addition to enhanced hand hygiene and school cleaning regimes, physical distancing measures were introduced to limit the spread of the virus. For primary schools, the recommendation was to keep class "bubbles" separate from one another (a bubble being one class and their teacher) and, within each "bubble", to keep discrete groups or "pods" of children as separate as possible – with at least one metre of distance between individual pods and, if feasible, between individual children within each pod as well. Primary school children were not required to wear face masks, notwithstanding concerns raised by the Irish National Teachers' Organisation (INTO) in this regard (O'Brien, 2020). Pupils and teachers deemed at "very high risk" from COVID-19 due to medical conditions could continue to engage in remote teaching and learning, with schools required to decide how to allocate resources to this. Additional funding and supports were provided to schools to facilitate the implementation of enhancing cleaning and the reconfiguration of classrooms to allow for physical distancing.

Also in July 2020, guidance on curriculum implementation for the coming school year was issued to schools (Department of Education and Skills, 2020e). The importance of allowing pupils "time, space and planned activities" to facilitate reconnection with their classmates and school staff was highlighted, with the key advice for the initial weeks being to "slow down to catch up" (p. 7). Attention was drawn to the widely varying experiences of pupils during the lockdown – and, in particular, to the heightened risk of learning loss for specific groups of pupils: those with special educational needs, those at risk of educational disadvantage, those with EAL, and those experiencing homelessness or living in direct provision. In this context, the need for teachers to spend time assessing pupils' needs and to re-teach, revise, and consolidate previous learning, as applicable, was highlighted. Priority curriculum areas were identified for particular focus during the initial weeks of the first term: Social, Personal and Health Education (SPHE), Physical Education (PE), Language, and Mathematics. In relation to Language specifically, key messages relating to the implementation of the PLC during the 2020/2021 school year included a focus on playful, interactive learning experiences to support oral language skills; the planning and facilitation of rich conversations featuring high-quality language, including topics to encourage cross-curricular connections; reciting poems from memory and singing songs to foster fluency and creativity with language; an increased focus on explicit language teaching across all curricular areas; access to plenty of reading materials in a range of genres and matched to pupils' ability and interest, to support their enjoyment of reading; and a balanced approach to teaching handwriting skills and functional and creative writing skills, including through such tasks as researching and presenting project work, recording observations over time, keeping a diary, emailing, script writing, and conducting surveys on family topics.

The Growing Up in Ireland survey data from 12-year-olds collected in December 2020 indicated

that, among those who were still in primary school when they returned to in-person teaching and learning, the majority seemed to find the return fairly smooth (Murray et al., 2021). Large proportions reported that they felt safe from COVID-19 infection in school (51% "always" and 40% "sometimes") and that teachers went over material to catch up (48% "always" and 43% "sometimes"). While some found schoolwork more difficult than before (6% "always" and 32% "sometimes"), a relatively small proportion reported finding it hard to settle back (4% "always" and 17% "sometimes"). Most 12-year-olds (including those who were in both primary and post-primary school in autumn 2020) felt that their classmates took COVID-19 seriously at least some of the time. Despite these positives, over one in five 12-year-olds reported low mood, and 18% of the group with low mood reported "always" finding it hard to settle back at school (compared to 3% of peers without low mood). Also, it was clear that COVID-19 had a substantial impact on school attendance between September and December 2020: just under 10% of 12-year-olds missed school due to having COVID-19 or its symptoms, while 12% missed school due to having a close contact with COVID-19 or its symptoms outside school. Smaller proportions missed school due to having a close contact in school (3%) or because the whole class or school had to stay home due to infection risk (2%).

In October 2020, the Department of Education issued guidance to primary schools on planning for further remote learning, should this prove necessary – whether in the event of individual pupils needing to isolate, class-level or school-level closures, or a further period of nationwide school closures (Department of Education and Skills, 2020c). Among other obligations, schools were required to identify an appropriate digital communication platform; to identify and develop teachers' skillsets in relation to the digital competencies required to deliver remote instruction; to give pupils an opportunity to develop the skillsets they would need through frequent opportunities to use the chosen platform, including using it to engage with learning materials and to upload their work; to support equity of access to digital resources by mapping the resource needs among their pupils and planning ways to meet these, e.g., by supplying school devices to pupils with none at home. Required features of remote learning provision included daily communication with pupils (noting, however, that some pupils might not be in a position to engage each day); a blend of direct instruction and independent learning; a focus on engaging learning tasks (with reduced use of workbook and textbook tasks); and two-way feedback between home (parents and pupils) and school (teachers), with ongoing opportunities for pupils to share samples of their work and receive corrections and feedback.

The epidemiological situation in Ireland worsened progressively between October and December 2020. After schools closed for the winter holiday period, the rate of infection became critically high, and, in consequence, schools did not reopen as planned in January 2021. A second period of nationwide closure and remote learning ensued.

January – March 2021: The second lockdown

As the PIRLS cohort moved – remotely – into their second term as Fourth Class pupils, uncertainty about the timeline for reopening schools remained high. However, due to the guidance provided to schools the previous autumn, as well as experience gleaned during the first lockdown, there were now clearer shared expectations for what remote teaching and learning should look like.

The Department of Education's Inspectorate provided dedicated email and phone support lines to advise schools on remote implementation of the curriculum. The Inspectorate also conducted surveys during this period with principals, parents, and pupils, alongside focus groups with parents.

Reports of these, contrasted with feedback collected during the first lockdown, paint a general picture of improved consistency and communication (Department of Education, 2021b). Most schools indicated that they had put one or more digital communication platforms in place, while most pupils, according to parents surveyed, used digital technology to engage with schoolwork during the second lockdown – although they appeared to engage less often with friends than during the first lockdown. While most primary principals indicated that teachers contacted pupils on a daily basis, a substantial minority of parents and pupils indicated that contact was less frequent. However, most primary pupils reported doing some schoolwork every day while at home, although the time spent on this varied (generally between one and four hours per day). The most commonly reported approach at primary level was for teachers to assign work via an online platform, with some parents in the focus groups expressing a desire for more frequent delivery of live or pre-recorded lessons. Feedback was typically provided via the online platform, email, or phone. Most parents reported that their child received regular feedback from teachers, although the pupils themselves were somewhat less positive in this regard. Most parents also agreed that they had opportunities to contact the school and that children were well supported by schools to engage in their work. In relation to reading specifically, most surveyed parents of primary pupils agreed that their child read or was read to on a regular basis during this period (as was also the case in April 2020).

Pupils and students returned to in-person instruction on a phased basis between February 22 and April 12, 2021, with the PIRLS 2021 cohort returning on March 15 (along with other pupils in Third to Sixth Class).

March – October 2021: The second return to the classroom and PIRLS administration

The PIRLS 2021 cohort completed their last three and a half months of Fourth Class in the classroom; subsequently, after the summer break, they returned to the classroom to start Fifth Class, with PIRLS testing taking place shortly after this.

Again, the Department of Education issued guidance to schools to support pupils' return to in-person learning (Department of Education, 2021e, 2021c). Similar to the guidance issued in summer 2020, emphasis was placed on allowing pupils time to settle back into the school routine and on using observation and other tools to assess their learning needs, especially in literacy and numeracy. Suggested approaches to ease the transition included shorter working periods followed by movement breaks, and assigning no or minimal homework for the first few weeks. Teachers were encouraged to use enquiry-based, creative learning methodologies – outdoors, where possible – and, conversely, to "avoid the over use of teacher-directed and didactic approaches to teaching and learning in an effort to 'catch up' or 'cover lost ground'" (Department of Education, 2021c, p. 1). While standardised testing was mandatory as usual in spring 2021, guidance was issued to note that school closures might impact both on pupils' anxiety around testing and on their results, in some cases, and that this should be borne in mind both when administering the tests and interpreting the outcomes (Department of Education, 2021d).

As part of a continuing effort to mitigate negative effects of the closures, the summer programme was expanded in 2021 to encompass a new "inclusion programme" for pupils with complex needs in mainstream classes and those deemed at risk of educational disadvantage in all schools, as well as the pre-existing programmes for pupils in DEIS schools and pupils with special educational needs in special schools and classes. Records indicate that 18,908 pupils

with special educational needs and 10,738 pupils in DEIS schools (increases of 5,300 and 3,738, respectively, relative to 2020), along with 6,103 pupils eligible under the new "inclusion programme", participated at primary level in 2021 (Department of Education, 2022c). From September that year, the CLASS was implemented, providing schools with a once-off allocation of additional teaching hours. The idea was that these could be used to provide extra teaching support for those for whom the closure period had exacerbated the risk of learning loss and/or early school leaving. As part of the scheme, an online forum was created in which schools could share information about mitigation strategies that worked well for them.

Thus far, this section has explored the COVID-19-related mitigation measures likely to have affected the PIRLS 2021 cohort. It is beyond the intended scope to consider policy changes that occurred after the PIRLS 2021 data were collected. Nevertheless, readers should be aware that the 2021-2022 school year did not entail any widespread closure of schools in Ireland – although a requirement for primary school pupils in Third Class and above to wear masks was introduced, for the first time, in December 2021, in response to a new wave of virus infections. In February 2022, the requirement for face masks to be worn in schools and other settings (e.g., public transport) was lifted, as was the requirement for social distancing measures such as bubbles and pods in schools. This ushered in a widespread revival of social and behavioural norms from before the pandemic.

To what extent can PIRLS data tell us about the impacts of policy decisions?

The PIRLS 2021 cohort experienced most of their primary education during the lifetime of the high-profile and multi-stranded *2011 National Strategy*, received instruction in language and reading through the PLC, and lived through the unprecedented educational turmoil caused by COVID-19 in the period immediately preceding PIRLS data collection. It seems likely, not to say inevitable, that their approaches to reading and their responses to contextual questions bear traces of these various experiences. Nevertheless, data from PIRLS – a cross-sectional study collecting "snapshot" data at a particular moment – cannot be used to prove conclusively that any specific policy or practice has caused a change in reading achievement or in response patterns on questionnaires (see, for example, Rutkowski & Delandshere, 2016, on the limitations of using large scale assessment data to make causal inferences).

Can we, then, draw any links at all between policy decisions and PIRLS outcomes? We can, at best, *suggest* some causal links that *seem plausible* based on existing information – provided that researchers and readers share an understanding that any such connections drawn are suppositions, or "best guesses", not proven fact. For example, it *seems reasonable to surmise* that the additional time spent on literacy instruction between 2011 and 2016 may have been a factor in the improved mean reading performance observed in PIRLS 2016 – but we cannot know this for sure. Similarly, it *seems logical* that any changes to teachers' practices during reading instruction between 2016 and 2021 may have been influenced by the PLC – but we cannot conclude this definitively.

The complex and intersecting nature of the various policy strands under consideration mean that it is challenging even to generate such tentative causal hypotheses or suppositions. Additional time spent on literacy instruction between 2011 and 2016 could have had an impact on Ireland's improved performance – but so could many other factors, including (but not limited to) other actions under the *2011 National Strategy*, such as increased provision of literacy-specific professional development for teachers, the introduction of mandatory standardised

testing in reading, the requirement for schools to conduct SSE with a focus on literacy, etc. The *2011 National Strategy*, in this sense, can be viewed as a highly complex policy intervention featuring multiple (and probably interacting) components; thus, it is difficult to theorise about which components, if any, have been effective (see Gilleece & Clerkin, 2024, on the evaluation of complex interventions in the Irish education system). Similarly, changes to teachers' practices during reading instruction between 2016 and 2021 may have been influenced by the PLC – but they may also have been influenced by the unusual circumstances created by the COVID-19 lockdowns, which themselves interrupted the anticipated rollout of support for the PLC, as well as other factors.

With all this in mind, the act of interpreting data from a study like PIRLS 2021 in relation to the policy context must, inevitably, be tentative and subjective. Nevertheless, the data presented in this report offer some initial clues as to how the unique policy context in which the PIRLS 2021 cohort were educated may have affected them. Importantly, these findings can also point towards possible avenues for future research and policy initiatives. As Ireland's new *Literacy, Numeracy and Digital Literacy Strategy* has recently been published (Department of Education, 2024b), this seems an opportune time to reflect on areas that may merit further investigation and/or emphasis.

Research questions

In light of this review of the relevant policy context, and considering all caveats associated with PIRLS 2021 data, four research questions underpin this report:

1) Which pupil, home, class, teacher, and school characteristics are related to Fifth Class pupils' reading achievement in Ireland? Do these relationships among pupils in Ireland differ from the corresponding ones among their peers in a set of selected reference countries and across all PIRLS participating countries as a whole? To what extent have these relationships among pupils in Ireland changed, if at all, across the PIRLS cycles? *(Chapters 3 – 5)*

2) What are the characteristics of low-, medium-, and high-achieving Fifth Class pupils in reading in Ireland? *(Chapter 6)*

3) Do Fifth Class pupils' wellbeing, school-related experiences, and reading attitudes and behaviours vary by their gender, country of birth, socioeconomic status, and school DEIS status in Ireland? *(Chapter 7)*

4) What were the educational experiences of Fifth Class pupils during the COVID-19 pandemic? *(Chapter 8)*

In Chapter 9, key themes and potential policy implications arising from the findings are identified and discussed.

PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

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CHAPTER 3

Chapter 3: Reading Achievement by Pupil and Home Characteristics

As part of PIRLS 2021, participating pupils and their parents were asked to complete questionnaires, as described in Chapter 1. The focus of this chapter is on the relationships of selected pupil and home characteristics, as captured through these questionnaires, with the reading achievement of pupils in Ireland. As also described in Chapter 1, the PIRLS framework explores reading according to the *purposes* for which children read, covering "Literary" and "Informational" purposes, and the comprehension *processes* they use when reading, covering the processes of "Retrieve", "Infer", "Interpret", and "Evaluate". Overall performance by purpose is reflected in separate "Literary" and "Informational" subscales, while, for reporting, the comprehension processes have been combined to also create two subscales: "Retrieve/Infer" and "Interpret/Evaluate". In this chapter, reading achievement overall and across the four subscales is presented. Ireland's data are compared to those of selected reference countries and the corresponding averages across all PIRLS countries, while data from PIRLS 2011 and 2016 are also compared to those from 2021, where appropriate.

Demographic background and home environment

Country of birth

Parents of PIRLS pupils were asked whether their child was born in the country in which the PIRLS test took place. Table 3.1 shows the percentages and mean achievement of pupils *born in country* and *born outside country* in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, as in all reference countries, the vast majority (92%) of pupils were born in the country of the test. While pupils born in Ireland had a higher mean score than those born outside of Ireland (583 vs 572), this difference was not statistically significant. Overall, the magnitude and direction of mean achievement differences between pupils *born in country* and *born outside country* varied across countries. The largest mean difference (56 points) was in Finland, favouring pupils born in the country, while the smallest difference (4 points) was in Singapore, with a slight but not statistically significant advantage for pupils born outside the country.

Table 3.1: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by pupils' country of birth (2021)

		Overall mean	Born in country		Born outside country		Mean difference between *born in country* and *born outside country*
			%	Mean	%	Mean	
Start G5	Ireland	577	92	583	8	572	-10
	Northern Ireland	566	94	575	6	598	**+23**
	Croatia	557	98	558	2	~	~
	Lithuania	552	95	571	5	547	**-24**
End G4	Australia ⋈	540	-	-	-	-	-
	England ⋈	558	-	-	-	-	-
	Hong Kong SAR	573	91	575	9	569	-6
	Poland	549	97	550	3	553	+3
	Finland	549	96	555	4	499	**-56**
	New Zealand	521	83	538	17	559	**+20**
	Singapore	587	85	591	15	595	+4
	PIRLS	503	93	504	7	495	**-9**

Source: Appendix Table A3.1.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on pupils' country of birth were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

Tables 3.2 and 3.3 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils *born in country* and those *born outside country* in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils born in Ireland tended to achieve higher scores across all four subscales compared to their peers who were born outside Ireland, with mean differences on the Literary and Retrieve/Infer subscales being larger compared to those for the other two subscales and statistically significant.

Table 3.2: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by pupils' country of birth (2021)

		Literary			Informational		
		Born in country	**Born outside country**	**Mean difference between *born in country* and *born outside country***	**Born in country**	**Born outside country**	**Mean difference between *born in country* and *born outside country***
Start G5	Ireland	589	574	**-16**	579	570	-9
	Northern Ireland	583	601	**+19**	571	600	**+29**
	Croatia	569	~	~	554	~	~
	Lithuania	568	553	-15	574	544	**-29**
End G4	Australia ⋈	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-
	Hong Kong SAR	566	565	-2	585	573	-12
	Poland	553	559	+6	549	551	+1
	Finland	553	495	**-58**	556	494	**-62**
	New Zealand	540	560	**+20**	538	557	**+20**
	Singapore	595	599	+3	590	595	+5
	PIRLS	505	496	**-8**	503	494	**-9**

Source: Appendix Tables A3.2 and A3.3.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on pupils' country of birth were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

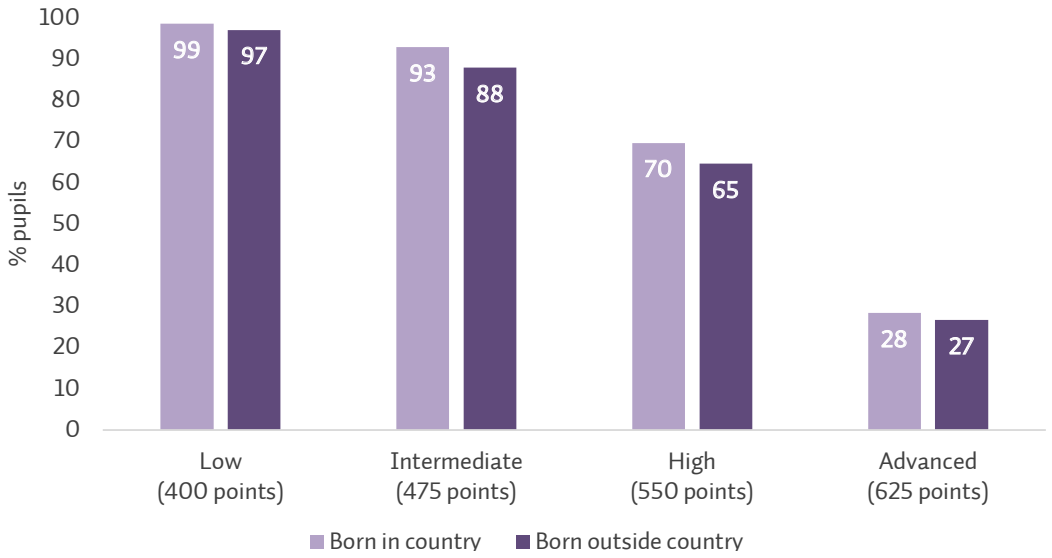
Table 3.3: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by pupils' country of birth (2021)

		Retrieve/Infer			Interpret/Evaluate		
		Born in country	**Born outside country**	**Mean difference between *born in country* and *born outside country***	**Born in country**	**Born outside country**	**Mean difference between *born in country* and *born outside country***
Start G5	Ireland	577	563	**-14**	587	579	-7
	Northern Ireland	567	588	**+21**	583	605	**+23**
	Croatia	554	~	~	563	~	~
	Lithuania	574	550	**-24**	570	546	-23
End G4	Australia ⋈	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-
	Hong Kong SAR	580	573	-6	574	567	-8
	Poland	546	549	+3	554	553	-1
	Finland	556	500	**-56**	555	498	**-57**
	New Zealand	536	553	**+17**	540	562	**+22**
	Singapore	587	593	+6	595	596	+1
	PIRLS	504	494	**-10**	503	496	**-8**

Source: Appendix Tables A3.4 and A3.5.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on pupils' country of birth were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by their country of birth are shown in Figure 3.1. Percentages of pupils reaching each of the four International Benchmarks were broadly similar between the two categories. Although those *born in country* appear to have a slight advantage over those *born outside country* at all four benchmarks, the only statistically significant difference was the one at the Intermediate Benchmark (93% vs 88%).

Figure 3.1: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by pupils' country of birth (2021)



Source: Appendix Table A3.6.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The question related to pupils' country of birth was included in the 2016 but not in the 2011 parent questionnaire. Although the proportions of pupils in the *born in country* and *born outside country* categories remained stable between 2016 and 2021, mean achievement differences between the two categories slightly narrowed between the two cycles across both overall reading achievement and all subscales (Table 3.4).

Table 3.4: Percentages and mean reading achievement of pupils in Ireland, by pupils' country of birth (2016, 2021)

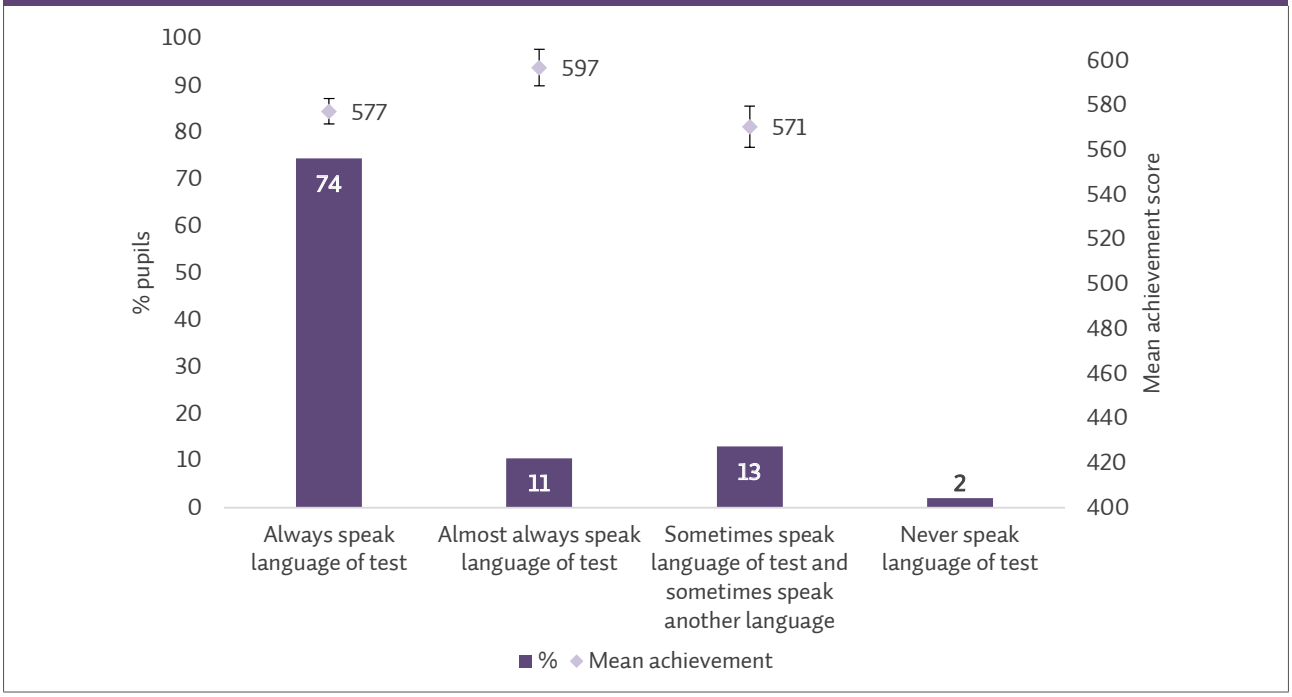
		Born in country		Born outside country		Mean difference between *born in country* and *born outside country*
		%	Mean	%	Mean	
Overall	**2016**	91	572	9	556	**-16**
	2021	92	583	8	572	-10
Literary	**2016**	91	576	9	559	**-18**
	2021	92	589	8	574	**-16**
Informational	**2016**	91	570	9	555	**-15**
	2021	92	579	8	570	-9
Retrieve/Infer	**2016**	91	572	9	553	**-18**
	2021	92	577	8	563	**-14**
Interpret/Evaluate	**2016**	91	574	9	561	**-13**
	2021	92	587	8	579	-7

Source: Appendix Table A3.7.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Language(s) spoken at home

Figure 3.2 shows the percentages and mean achievement of pupils in Ireland in 2021 who always, almost always, sometimes, and never spoke the language of the PIRLS test at home. Approximately three-quarters of pupils (74%) indicated that they always spoke the language of the test at home, 11% and 13% that they almost always and sometimes did so, respectively, and 2% that they never spoke the language of the test at home. Pupils who almost always spoke the language of the test at home achieved the highest mean score (597), which was statistically significantly higher than the score of those who always spoke the language of the test at home, which was used as the reference category (577). Due to small number of pupils and resulting error margins, the estimate of mean achievement for pupils in the *never speak language of test* category is not presented here as no clear conclusions can be drawn about their relative performance.

Figure 3.2: Percentages and mean achievement of pupils in Ireland by language(s) spoken at home, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.8.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Mean achievement is not reported for the *never speak language of test* category due to insufficient data.

Table 3.5 shows the percentages and mean achievement of pupils by the frequency with which they spoke the language of the PIRLS test at home in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The pattern observed in Ireland was also evident internationally, with pupils who almost always spoke the language of the test at home achieving the highest mean scores. Finland was an exception to this pattern, with pupils who always and almost always spoke the language of the test at home achieving similar scores.

Table 3.5: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by language(s) spoken at home (2021)

		Overall mean	Always speak language of test		Almost always speak language of test		Sometimes speak language of test and sometimes speak another language		Never speak language of test		Mean difference between *always* and *never speak language of test*
			%	Mean	%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	74	578	11	597	13	571	2	~	~
	Northern Ireland	566	84	566	9	576	6	560	1	~	~
	Croatia	557	72	557	19	568	9	539	1	~	~
	Lithuania	552	56	552	28	563	15	540	1	~	~
End G4	Australia ⋈	540	67	536	15	557	18	550	1	~	~
	England ⋈	558	69	556	12	573	17	557	2	~	~
	Hong Kong SAR	573	43	575	17	584	34	568	6	558	**-17**
	Poland	549	74	549	19	559	6	544	0	~	~
	Finland	549	71	555	17	554	10	513	2	~	~
	New Zealand	521	-	-	-	-	-	-	-	-	-
	Singapore	587	33	587	20	610	44	581	3	532	**-55**
	PIRLS	503	63	505	15	510	18	499	4	460	**-45**

Source: Appendix Table A3.8.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on language(s) spoken at home were not available for New Zealand.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

Tables 3.6 and 3.7 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils who always, almost always, sometimes, and never spoke the language of the PIRLS test at home in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils who almost always spoke the language of the test at home tended to achieve higher mean scores across all four subscales compared to their peers, with some exceptions in Finland.

Table 3.6: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by language(s) spoken at home (2021)

		Literary					Informational				
		Always speak language of test	**Almost always speak language of test**	**Sometimes speak language of test and sometimes speak another language**	**Never speak language of test**	**Mean difference between *always* and *never speak language of test***	**Always speak language of test**	**Almost always speak language of test**	**Sometimes speak language of test and sometimes speak another language**	**Never speak language of test**	**Mean difference between *always* and *never speak language of test***
Start G5	Ireland	584	603	578	~	~	574	592	567	~	~
	Northern Ireland	573	583	571	~	~	562	574	552	~	~
	Croatia	567	579	548	~	~	552	565	537	~	~
	Lithuania	551	565	541	~	~	553	563	540	~	~
End G4	Australia ⋈	540	560	552	~	~	535	557	549	~	~
	England ⋈	557	575	556	~	~	557	577	559	~	~
	Hong Kong SAR	566	573	561	555	-10	584	596	578	560	**-24**
	Poland	551	563	549	~	~	548	558	538	~	~
	Finland	552	556	509	~	~	556	555	513	~	~
	New Zealand	-	-	-	-	-	-	-	-	-	-
	Singapore	589	617	586	535	**-54**	587	610	579	533	**-54**
	PIRLS	506	511	500	460	**-46**	504	510	498	460	**-44**

Source: Appendix Tables A3.9 and A3.10.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on language(s) spoken at home were not available for New Zealand.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

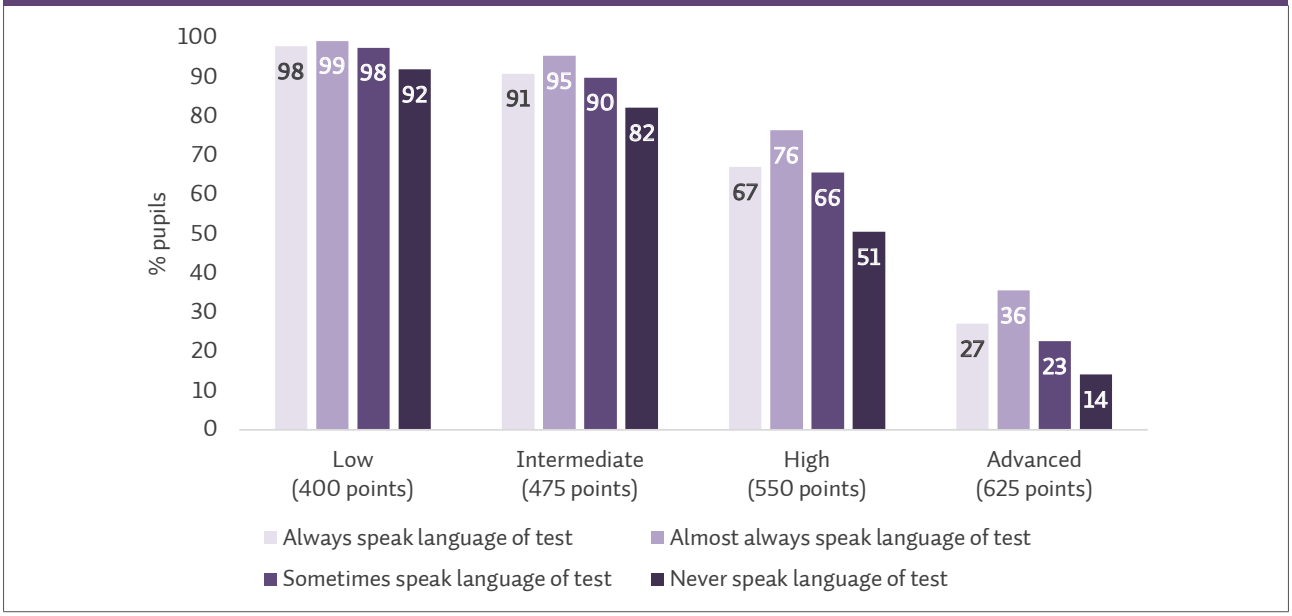
Table 3.7: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by language(s) spoken at home (2021)

		Retrieve/Infer					Interpret/Evaluate				
		Always speak language of test	**Almost always speak language of test**	**Sometimes speak language of test and sometimes speak another language**	**Never speak language of test**	**Mean difference between *always* and *never speak language of test***	**Always speak language of test**	**Almost always speak language of test**	**Sometimes speak language of test and sometimes speak another language**	**Never speak language of test**	**Mean difference between *always* and *never speak language of test***
Start G5	Ireland	571	587	569	~	~	582	603	572	~	~
	Northern Ireland	558	569	555	~	~	574	583	563	~	~
	Croatia	552	563	534	~	~	561	572	546	~	~
	Lithuania	555	563	542	~	~	549	563	540	~	~
End G4	Australia ⋈	530	547	545	~	~	544	564	555	~	~
	England ⋈	552	576	553	~	~	560	576	560	~	~
	Hong Kong SAR	578	593	573	561	**-18**	575	581	568	558	**-17**
	Poland	545	556	538	~	~	552	560	548	~	~
	Finland	555	556	514	~	~	555	553	512	~	~
	New Zealand	-	-	-	-	-	-	-	-	-	-
	Singapore	584	607	577	530	**-54**	591	614	585	537	**-54**
	PIRLS	505	509	499	459	**-46**	505	510	499	461	**-44**

Source: Appendix Tables A3.11 and A3.12.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on language(s) spoken at home were not available for New Zealand.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the frequency with which they spoke the language of the PIRLS test at home are shown in Figure 3.3. Higher percentages reaching each of the benchmarks were noted for pupils who almost always spoke the language of the test at home, with the advantage of this group being more apparent with every subsequent benchmark. Percentages for the *never speak language of test* category should be interpreted with caution as this category is represented by only 2% of the sample.

Figure 3.3: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by language(s) spoken at home (2021)



Source: Appendix Table A3.13.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 asked pupils about the frequency with which they spoke the language of the PIRLS test at home; however, categories were different in 2011 (the categories of *always speak language of test* and *almost always speak language of test* were part of one response option). Hence, only 2016 and 2021 are presented here (2011 data can be found in Appendix Table A3.14). Consistent with patterns noted in 2021, pupils who almost always spoke the language of the test at home in 2016 had the highest scores across both overall reading achievement and all subscales (Table 3.8).

Table 3.8: Percentages and mean reading achievement of pupils in Ireland, by language(s) spoken at home (2016, 2021)

		Always speak language of test		Almost always speak language of test		Sometimes speak language of test and sometimes speak another language		Never speak language of test		Mean difference between *always* and *never speak language of test*
		%	Mean	%	Mean	%	Mean	%	Mean	
Overall	**2016**	79	567	10	587	10	559	2	~	~
	2021	74	578	11	597	13	571	2	~	~
Literary	**2016**	79	571	10	594	10	562	2	~	~
	2021	74	584	11	603	13	578	2	~	~
Informational	**2016**	79	565	10	585	10	557	2	~	~
	2021	74	574	11	592	13	567	2	~	~
Retrieve/Infer	**2016**	79	566	10	584	10	558	2	~	~
	2021	74	571	11	587	13	569	2	~	~
Interpret/Evaluate	**2016**	79	569	10	592	10	561	2	~	~
	2021	74	582	11	603	13	572	2	~	~

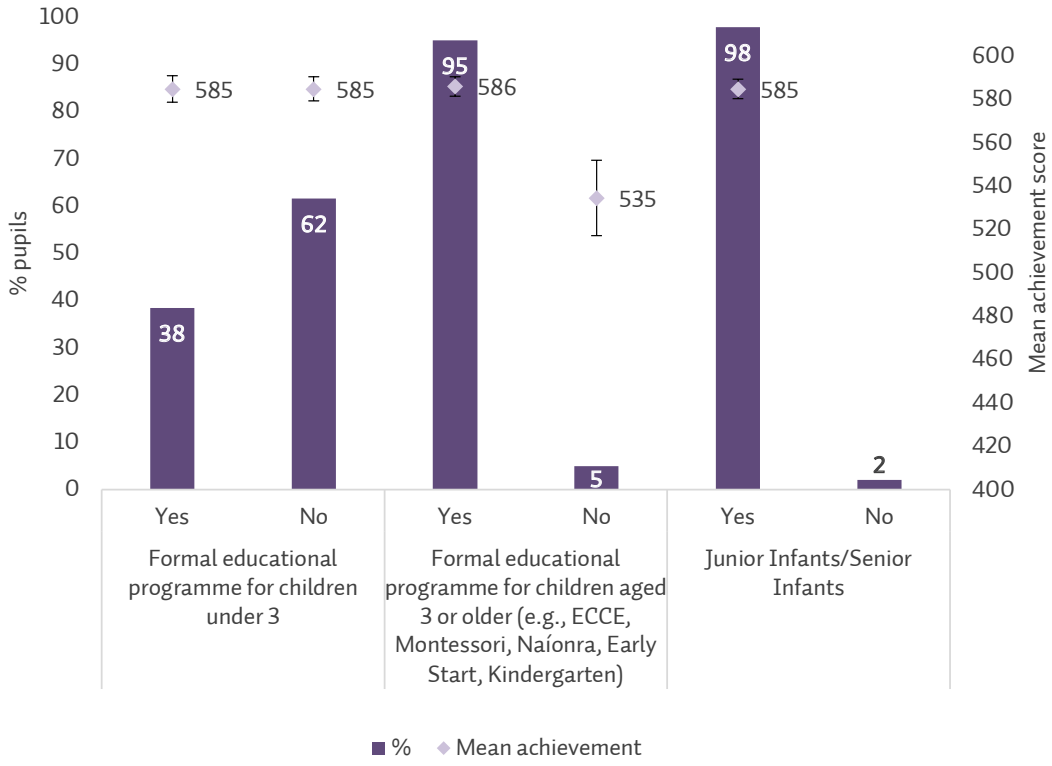
Source: Appendix Table A3.14.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Preschool attendance

Parents of PIRLS pupils in Ireland were asked whether their child attended different types of formal educational programmes before starting First Class. Specifically, parents were asked about their child's attendance at the following: (i) formal educational programme for children under 3, (ii) formal educational programme for children aged 3 or older (e.g., ECCE, Montessori, Naíonra, Early Start, Kindergarten), and (iii) Junior Infants/Senior Infants.

Figure 3.4 shows the percentages and mean achievement of pupils who attended and those who did not attend each of these kinds of educational programmes in Ireland. While the vast majority of pupils (95% and 98%, respectively), as expected, attended a formal educational programme for children aged 3 or older and Junior Infants/Senior Infants, approximately 60% attended a formal educational programme for children under 3. Pupils who attended the latter type of programme did not perform differently from their peers who did not. Pupils who attended a formal educational programme for children aged 3 or older achieved a statistically significantly higher mean score (586) than their peers who did not (535). Due to small number of pupils and resulting error margins, the estimate of mean achievement for pupils who did not attend Junior/Senior Infants is not presented here as no clear conclusions can be drawn about their relative performance.

Figure 3.4: Percentages and mean achievement of pupils in Ireland by preschool attendance, with confidence intervals around estimates of achievement (2021)



Source: Appendix Tables A3.15, A3.16, and A3.17.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Mean achievement is not reported for the *no* category (Junior Infants/Senior Infants) due to insufficient data.

Table 3.9 shows the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the three variables related to preschool attendance in Ireland. Reflecting the patterns noted for overall reading achievement, pupils who attended a formal educational programme for children under 3 did not perform differently across the four subscales from their peers who did not. Pupils who attended a formal educational programme for children aged 3 or older achieved statistically significantly higher scores, with mean differences being similar in magnitude across the four subscales. Mean achievement differences between pupils who attended Junior Infants/Senior Infants and those who did not are not reported due to the very low percentage of pupils belonging to the latter group.

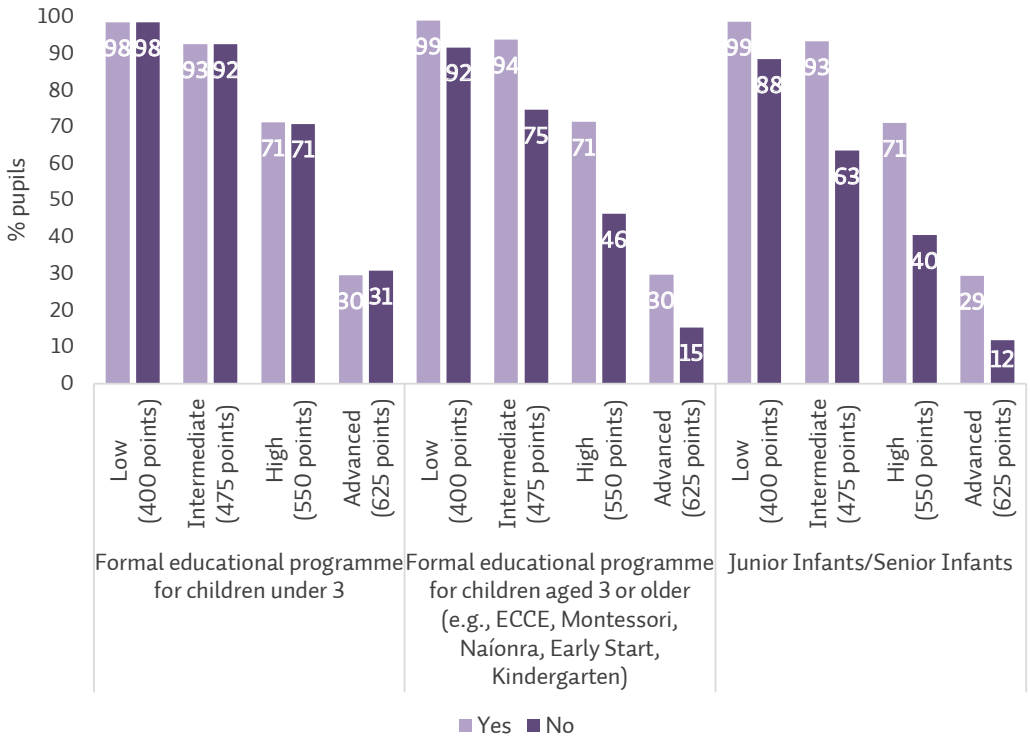
Table 3.9: Mean achievement on reading **purpose** and **process** subscales of pupils in Ireland, by preschool attendance (2021)

		Yes	No	Mean difference between *yes* and *no*
Formal educational programme for children under 3	**Literary**	590	592	+2
	Informational	581	582	+1
	Retrieve/Infer	579	579	0
	Interpret/Evaluate	588	590	+1
Formal educational programme for children aged 3 or older (e.g., ECCE, Montessori, Naíonra, Early Start, Kindergarten)	**Literary**	593	540	**-52**
	Informational	583	532	**-51**
	Retrieve/Infer	580	530	**-50**
	Interpret/Evaluate	590	539	**-51**
Junior Infants/Senior Infants	**Literary**	591	~	~
	Informational	582	~	~
	Retrieve/Infer	579	~	~
	Interpret/Evaluate	589	~	~

Source: Appendix Tables A3.15, A3.16, and A3.17.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by their preschool attendance are shown in Figure 3.5. Percentages of pupils reaching each of the benchmarks were virtually identical between pupils who attended vs did not attend a formal educational programme for children under 3. Percentage differences between pupils who attended vs did not attend a formal educational programme for children aged 3 or older were statistically significant across all benchmarks, with the former group having an advantage. These differences increased in magnitude between the Low and the High Benchmarks, going from seven percentage points to 25 percentage points, but decreased back to 14 percentage points at the Advanced Benchmark. Percentage differences for the third variable (attendance vs non-attendance at Junior Infants/Senior Infants) should be interpreted with caution as the *no* category is represented by only 2% of the sample.

Figure 3.5: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by preschool attendance (2021)



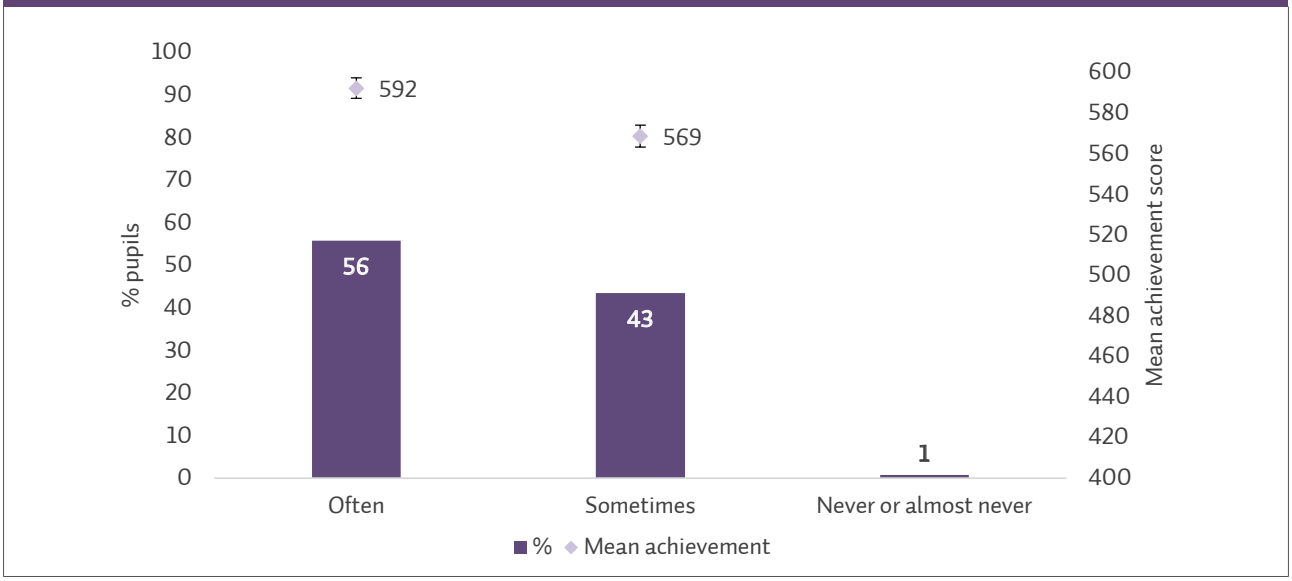
Source: Appendix Tables A3.18, A3.19, and A3.20.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Early literacy activities

Parents of PIRLS pupils were asked about the frequency with which they or someone else in their home engaged their child in a range of early literacy activities before the child started First Class. The early literacy activities were: *Read books; Tell stories; Sing songs; Play with alphabet toys (e.g., blocks with letters of the alphabet); Talk about things you had done; Talk about what you had read; Play word games; Write letters or words; Read aloud signs and labels,* and response options ranged from *often* to *never or almost never.* Parents' responses were used to create the PIRLS *Early Literacy Activities* scale, on the basis of which pupils were grouped into three categories: *often, sometimes*, or *never or almost never.*

Figure 3.6 shows the percentages and mean achievement of pupils who *often*, *sometimes*, or *never or almost never* did these early literacy activities with their parents or someone else at home before they started First Class in Ireland in 2021. More than half of pupils (56%) were reported by their parents to be *often* involved in early literacy activities, 43% were reported to be *sometimes* involved in such activities, and only 1% were reported to *never or almost never* be involved in such activities. Pupils who were *often* involved in early literacy activities achieved the highest mean score (592), which was statistically significantly higher than the score of their peers who were *sometimes* involved in early literacy activities (569). Due to small number of pupils and resulting error margins, the estimate of mean achievement for pupils in the *never or almost never* category is not presented here as no clear conclusions can be drawn about their relative performance.

Figure 3.6: Percentages and mean achievement of pupils in Ireland by frequency of involvement in early literacy activities, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.21.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Mean achievement is not reported for the *never or almost never* category due to insufficient data.

Table 3.10 shows the percentages and mean achievement of pupils in each category of the PIRLS *Early Literacy Activities* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The pattern observed in Ireland was also evident internationally, with score differences between pupils in the *often* and the *sometimes* categories being statistically significant and ranging from 17 points in Lithuania to 33 in New Zealand. Due to the small numbers of pupils in the *never or almost never* category across most reference countries, the estimates of mean achievement for pupils in this category are not reported for most of the countries, including Ireland.

Table 3.10: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of involvement in early literacy activities (2021)

		Overall mean	Often		Sometimes		Never or almost never		Mean difference between *often* and *never or almost never*
			%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	56	592	43	569	1	~	~
	Northern Ireland	566	64	584	35	565	1	~	~
	Croatia	557	58	569	42	543	0	~	~
	Lithuania	552	47	579	53	562	1	~	~
End G4	Australia ⋈	540	-	-	-	-	-	-	-
	England ⋈	558	-	-	-	-	-	-	-
	Hong Kong SAR	573	16	591	81	571	3	560	**-31**
	Poland	549	53	559	47	541	0	~	~
	Finland	549	33	565	66	547	1	~	~
	New Zealand	521	59	556	40	523	1	~	~
	Singapore	587	35	613	62	582	4	553	**-60**
	PIRLS	503	42	519	55	496	2	~	~

Source: Appendix Table A3.21.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on early literacy activities were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

Tables 3.11 and 3.12 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the PIRLS *Early Literacy Activities* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils who were *often* involved in early literacy activities tended to achieve statistically significantly higher scores across all four subscales compared to their peers who were *sometimes* involved in such activities across all reference countries, with mean differences being similar in magnitude across the four subscales.

Table 3.11: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of involvement in early literacy activities (2021)

		Literary				Informational			
		Often	**Sometimes**	**Never or almost never**	**Mean difference between *often* and *never or almost never***	**Often**	**Sometimes**	**Never or almost never**	**Mean difference between *often* and *never or almost never***
Start G5	Ireland	599	575	~	~	589	566	~	~
	Northern Ireland	591	572	~	~	579	561	~	~
	Croatia	580	554	~	~	565	539	~	~
	Lithuania	579	558	~	~	581	565	~	~
End G4	Australia ⋈	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-
	Hong Kong SAR	583	562	556	**-28**	600	581	564	**-36**
	Poland	561	545	~	~	557	540	~	~
	Finland	562	545	~	~	566	547	~	~
	New Zealand	558	524	~	~	554	524	~	~
	Singapore	619	585	553	**-66**	613	581	553	**-60**
	PIRLS	520	497	~	~	519	496	~	~

Source: Appendix Tables A3.22 and A3.23.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on early literacy activities were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

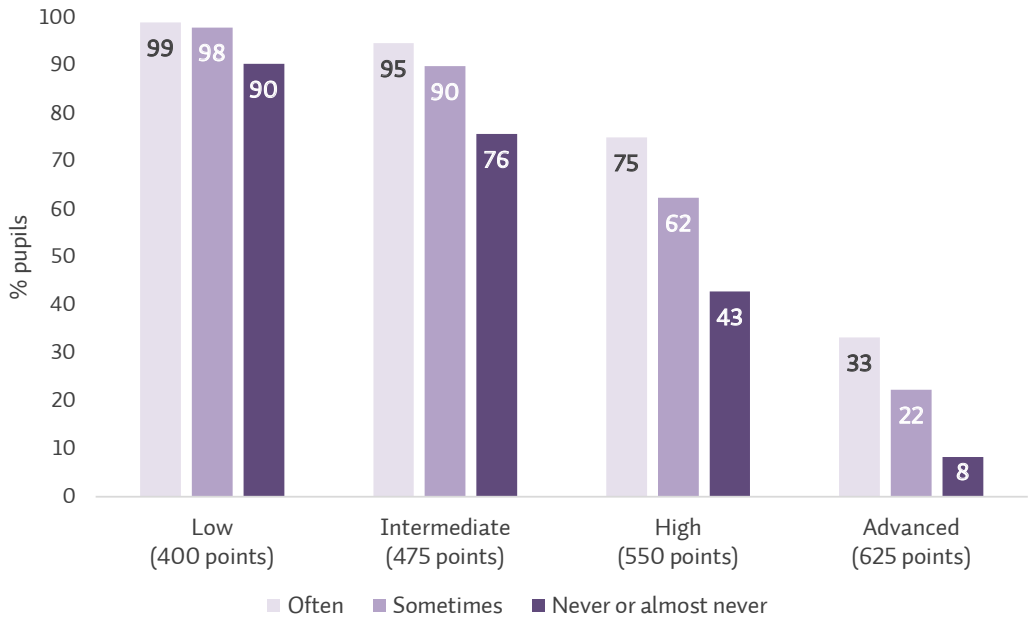
Table 3.12: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of involvement in early literacy activities (2021)

		Retrieve/Infer				Interpret/Evaluate			
		Often	**Sometimes**	**Never or almost never**	**Mean difference between *often* and *never or almost never***	**Often**	**Sometimes**	**Never or almost never**	**Mean difference between *often* and *never or almost never***
Start G5	Ireland	587	563	~	~	597	573	~	~
	Northern Ireland	576	557	~	~	591	573	~	~
	Croatia	564	539	~	~	574	547	~	~
	Lithuania	581	565	~	~	577	562	~	~
End G4	Australia ⋈	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-
	Hong Kong SAR	597	576	563	**-34**	590	570	560	**-30**
	Poland	554	537	~	~	562	546	~	~
	Finland	566	548	~	~	565	546	~	~
	New Zealand	553	520	~	~	558	525	~	~
	Singapore	610	579	549	**-61**	616	586	558	**-58**
	PIRLS	519	496	~	~	519	496	~	~

Source: Appendix Tables A3.24 and A3.25.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on early literacy activities were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the frequency with which they were involved in early literacy activities with parents before starting First Class are shown in Figure 3.7. Percentage differences between the *often* and *sometimes* categories were statistically significant across three of the four benchmarks (Intermediate, High, and Advanced), with the former category tending to have an advantage compared to the latter. Given that only 1% of pupils belonged to the *never or almost never* category, comparisons of the cumulative percentages of pupils within this category reaching each of the four International Benchmarks should be interpreted very cautiously.

Figure 3.7: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by frequency of involvement in early literacy activities (2021)



Source: Appendix Table A3.26.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 asked pupils' parents about the frequency with which they were involved, together with their children, in early literacy activities. However, in 2011, pupils' parents were asked about their child's involvement in such activities before they started primary school (i.e., before starting Junior Infants), while in 2016 and 2021, they were asked about their child's involvement in such activities before they started First Class. Provided that comparisons of 2016 and 2021 data to those from 2011 are not directly comparable, these are not presented here (additional information about 2011 can be found in Appendix Table A3.27). The proportions of pupils who were *often*, *sometimes*, and *never or almost never* involved in early literacy activities remained stable between 2016 and 2021. Across overall reading and the four subscales, all mean achievement differences between the *often* and *sometimes* categories, favouring the former, were statistically significant in both 2016 and 2021. They were exactly 32 points in all cases in 2016 and they ranged from 23 to 25 points in 2021 (Table 3.13).

Table 3.13: Percentages and mean reading achievement of pupils in Ireland, by frequency of involvement in early literacy activities (2016, 2021)

		Often		Sometimes		Never or almost never		Mean difference between *often* and *never or almost never*
		%	Mean	%	Mean	%	Mean	
Overall	**2016**	55	586	45	554	1	~	~
	2021	56	592	43	569	1	~	~
Literary	**2016**	55	590	45	558	1	~	~
	2021	56	599	43	575	1	~	~
Informational	**2016**	55	584	45	552	1	~	~
	2021	56	589	43	566	1	~	~
Retrieve/Infer	**2016**	55	585	45	553	1	~	~
	2021	56	587	43	563	1	~	~
Interpret/Evaluate	**2016**	55	588	45	556	1	~	~
	2021	56	597	43	573	1	~	~

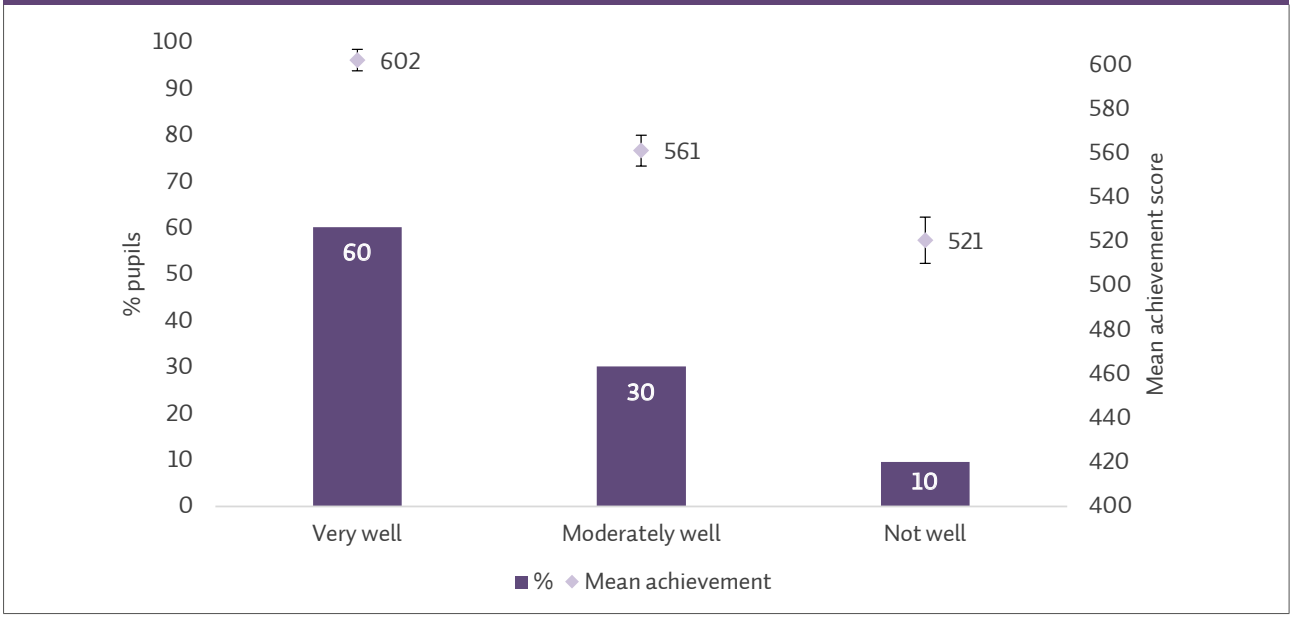
Source: Appendix Table A3.27.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Literacy readiness

Parents of PIRLS pupils were asked about how well their child could do six literacy tasks when they began First Class. These literacy tasks were: *Recognise most of the letters of the alphabet*; *Read some words*; *Read sentences*; *Read a story*; *Write letters of the alphabet*; *Write their own name; Write words other than their own name,* and response options ranged from *very well* to *not at all*. Parents' responses were used to create the PIRLS *Early Literacy Tasks* scale, on the basis of which pupils were grouped into three categories: *very well*, *moderately well*, or *not well*.

Figure 3.8 shows the percentages and mean achievement of pupils in Ireland in 2021 who were able to do the aforementioned literacy tasks *very well*, *moderately well*, or *not well* before they started First Class. More than half of pupils (60%) were reported by their parents to be able to do these literacy tasks *very well*, 30% were reported to be able to do them *moderately well*, and 10% were reported to be able to do them *not well*. Pupils who were able to do these literacy tasks *very well* achieved the highest mean score (602), which was statistically significantly higher than the scores of the rest of their peers in the *moderately well* (561) and *not well* (521) categories.

Figure 3.8: Percentages and mean achievement of pupils in Ireland by the extent to which pupils could do early literacy tasks before the first grade of primary school, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.28.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.14 shows the percentages and mean achievement of pupils in each category of the PIRLS *Early Literacy Tasks* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The extent to which pupils were reported by their parents to be able to do a range of literacy tasks before starting the first grade of primary school varied across countries; Ireland had the highest proportion of pupils in the *very well* category among the reference countries (but also among all participating countries) (60%), while New Zealand had the lowest among the reference countries (23%). The magnitude of mean achievement differences between the *very well* and *not well* categories also varied across countries, ranging from 32 points in New Zealand to 105 in Singapore. Mean differences across all countries, though, favoured the *very well* category and were statistically significant, in line with the pattern observed in Ireland. It should be noted that, in some countries, this question asked about ability to carry out early literacy tasks when starting school, whereas pupils in Ireland would typically have completed Junior and Senior Infants prior to starting First Class.

Table 3.14: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which pupils could do early literacy tasks before the first grade of primary school (2021)

		Overall mean	Very well		Moderately well		Not well		Mean difference between *very well* and *not well*
			%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	60	602	30	561	10	521	**-82**
	Northern Ireland	566	-	-	-	-	-	-	-
	Croatia	557	44	580	37	546	18	528	**-52**
	Lithuania	552	38	603	40	563	23	529	**-75**
End G4	Australia ⋈	540	-	-	-	-	-	-	-
	England ⋈	558	-	-	-	-	-	-	-
	Hong Kong SAR	573	46	596	43	565	11	525	**-71**
	Poland	549	47	570	35	541	17	518	**-51**
	Finland	549	28	587	29	553	44	530	**-57**
	New Zealand	521	23	561	34	546	43	529	**-32**
	Singapore	587	52	619	37	575	11	514	**-105**
	PIRLS	503	31	527	35	501	34	479	**-48**

Source: Appendix Table A3.28.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 53 rather than 57 countries as data on early literacy tasks were not available for Australia, England, Northern Ireland, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

Tables 3.15 and 3.16 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the PIRLS *Early Literacy Tasks* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils who were able to do a range of literacy tasks *very well* before starting the first grade of primary school tended to achieve statistically significantly higher scores across all four subscales compared to their peers who were *not well* able to do these tasks. In Ireland, mean differences were roughly similar in magnitude across the four subscales.

Table 3.15: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which pupils could do early literacy tasks before the first grade of primary school (2021)

		Literary				Informational			
		Very well	**Moderately well**	**Not well**	**Mean difference between *very well* and *not well***	**Very well**	**Moderately well**	**Not well**	**Mean difference between *very well* and *not well***
Start G5	Ireland	609	566	525	**-85**	599	557	517	**-82**
	Northern Ireland	-	-	-	-	-	-	-	-
	Croatia	591	559	535	**-56**	576	541	525	**-51**
	Lithuania	600	562	526	**-74**	606	566	530	**-76**
End G4	Australia ⋈	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-
	Hong Kong SAR	587	557	517	**-70**	606	574	534	**-72**
	Poland	572	544	522	**-50**	570	537	518	**-52**
	Finland	584	551	528	**-56**	590	554	530	**-60**
	New Zealand	560	549	530	**-30**	561	545	528	**-33**
	Singapore	625	578	518	**-107**	618	575	513	**-106**
	PIRLS	527	502	479	**-49**	527	501	478	**-49**

Source: Appendix Tables A3.29 and A3.30.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 53 rather than 57 countries as data on early literacy tasks were not available for Australia, England, Northern Ireland, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

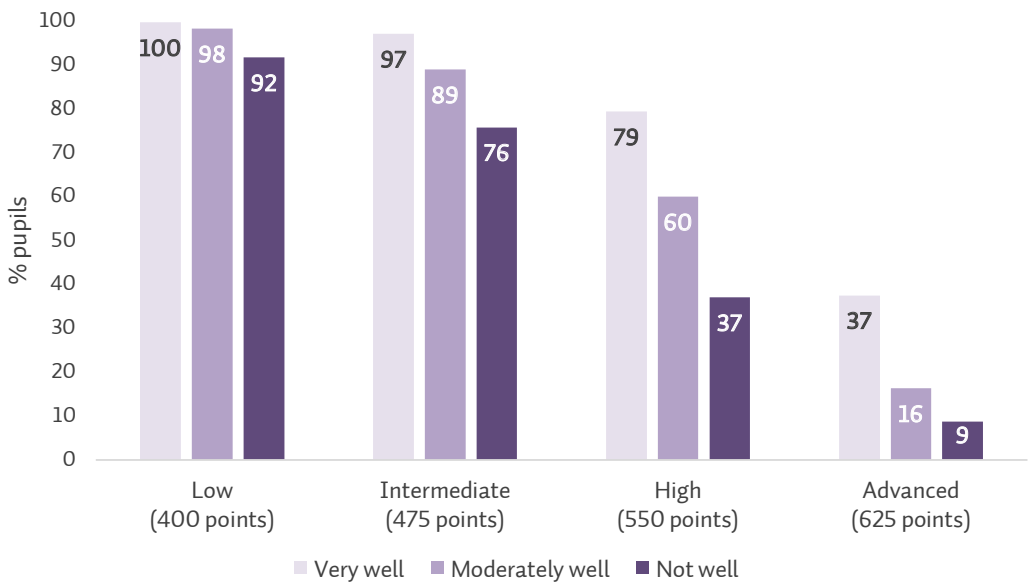
Table 3.16: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which pupils could do early literacy tasks before the first grade of primary school (2021)

		Retrieve/Infer				Interpret/Evaluate			
		Very well	**Moderately well**	**Not well**	**Mean difference between *very well* and *not well***	**Very well**	**Moderately well**	**Not well**	**Mean difference between *very well* and *not well***
Start G5	Ireland	596	555	515	**-81**	607	564	526	**-81**
	Northern Ireland	-	-	-	-	-	-	-	-
	Croatia	576	542	524	**-52**	585	552	531	**-53**
	Lithuania	609	564	529	**-79**	602	560	531	**-71**
End G4	Australia ⋈	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-
	Hong Kong SAR	601	569	527	**-74**	593	565	528	**-65**
	Poland	564	537	515	**-49**	573	543	524	**-49**
	Finland	590	555	529	**-62**	585	553	531	**-54**
	New Zealand	558	544	525	**-32**	561	548	532	**-29**
	Singapore	615	573	514	**-101**	624	577	521	**-103**
	PIRLS	528	501	479	**-49**	526	500	479	**-47**

Source: Appendix Tables A3.31 and A3.32.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 53 rather than 57 countries as data on early literacy tasks were not available for Australia, England, Northern Ireland, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by how well they could do a range of literacy tasks when they began First Class based on their parents' reports are shown in Figure 3.9. Percentage differences between the *very well* and *not well* categories were statistically significant across all four benchmarks, with the former tending to have an advantage compared to the latter. These percentage differences ranged from eight percentage points at the Low Benchmark to 42 percentage points at the High Benchmark.

Figure 3.9: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the extent to which pupils could do early literacy tasks before the first grade of primary school (2021)



Source: Appendix Table A3.33.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included an *Early Literacy Tasks* scale; however, the 2011 scale was slightly different to the corresponding 2016 and 2021 scales.[20] This means that comparisons are only possible between the 2016 and 2021 data (additional information about the scale components across cycles can be found in Appendix Table A3.35). While proportions of pupils in each of the three categories remained stable between 2016 and 2021, mean achievement differences between the *very well* and *not well* categories widened between the two cycles across both overall reading achievement and all four subscales (Table 3.17).

20 In 2016 and 2021, the scale included one item that was not included in the 2011 scale: *Read a story* (Martin et al., 2017; Martin & Mullis, 2012).

Table 3.17: Percentages and mean reading achievement of pupils in Ireland, by the extent to which pupils could do early literacy tasks before the first grade of primary school (2016, 2021)

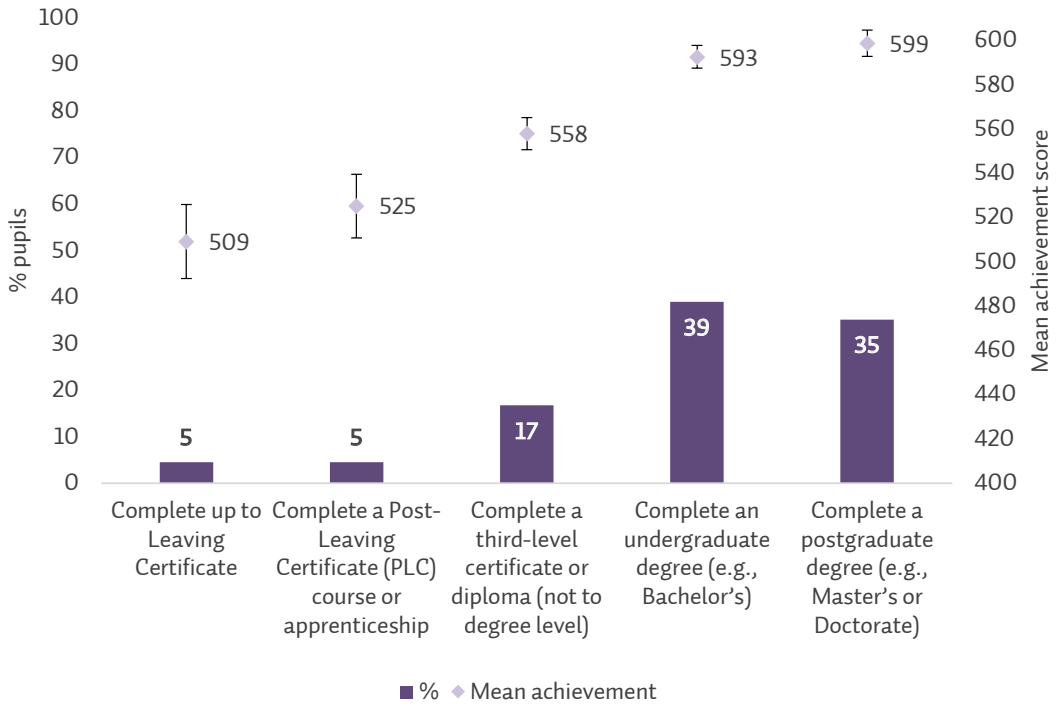
		Very well		Moderately well		Not well		Mean difference between *very well* and *not well*
		%	Mean	%	Mean	%	Mean	
Overall	**2016**	61	590	29	548	10	519	**-72**
	2021	60	602	30	561	10	521	**-82**
Literary	**2016**	61	595	29	553	10	521	**-74**
	2021	60	609	30	566	10	525	**-85**
Informational	**2016**	61	589	29	546	10	514	**-76**
	2021	60	599	30	557	10	517	**-82**
Retrieve/Infer	**2016**	61	591	29	547	10	516	**-75**
	2021	60	596	30	555	10	515	**-81**
Interpret/Evaluate	**2016**	61	593	29	549	10	522	**-71**
	2021	60	607	30	564	10	526	**-81**

Source: Appendix Table A3.34.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. In 2016 and 2021, the scale included one item that was not included in the 2011 scale: *Read a story*. One of the items included in 2011 and 2016 was split into two items in 2021; *Write some words* was split into *Write their name* and *Write words other than their own name*, but only the *Write words other than their own name* was included in the scale.

Expectation of pupil education level

Parents of PIRLS pupils were asked about the highest education level they expected their child to complete. Figure 3.10 shows the percentages and mean achievement of pupils at each of these levels, based on their parents' expectations in Ireland in 2021. Approximately 40% of pupils were expected by their parents to complete an undergraduate degree, while 35% of pupils were expected to complete a postgraduate degree. Only 5% of pupils were expected to complete up to the Leaving Certificate (only) and a Post-Leaving Certificate (PLC) course or apprenticeship, respectively, and 17% were expected to complete a third-level certificate or diploma (not to degree level). Pupils' mean scores gradually increased with every higher expected education level, going from 509 at the lowest level to 599 at the highest level. Pupils expected to complete up to the Leaving Certificate (only) achieved a statistically significantly lower mean score (509) than the rest of their peers except for those expected to complete a PLC course or apprenticeship (525).

Figure 3.10: Percentages and mean achievement of pupils in Ireland by parental educational expectations for pupils, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.36.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.18 shows the mean achievement on each of the reading purpose and comprehension process subscales for pupils expected to reach the various education levels in Ireland. Reflecting the patterns noted for overall reading achievement, pupils who were expected to complete up to the Leaving Certificate (only) tended to achieve statistically significantly lower scores across all four subscales compared to their peers who were expected to complete a postgraduate degree. This difference was slightly larger for the Informational subscale compared to the rest of the subscales.

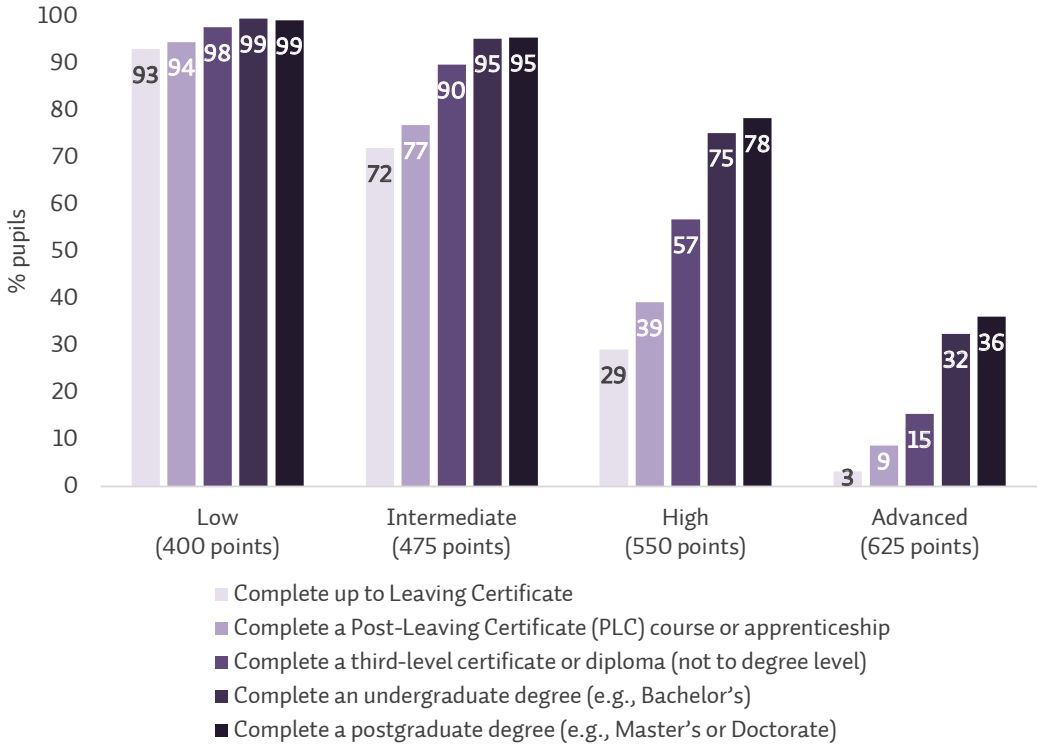
Table 3.18: Mean achievement on reading **purpose** and **process** subscales of pupils in Ireland, by parental educational expectations for pupils (2021)

	Complete up to Leaving Certificate	**Complete a Post-Leaving Certificate (PLC) course or apprenticeship**	**Complete a third-level certificate or diploma (not to degree level)**	**Complete an undergraduate degree (e.g., Bachelor's)**	**Complete a postgraduate degree (e.g., Master's or Doctorate)**	**Mean difference between *complete up to Leaving Certificate* and *complete a postgraduate degree (e.g., Master's or Doctorate)***
Literary	515	530	568	598	604	**+89**
Informational	502	521	554	590	596	**+94**
Retrieve/Infer	505	524	554	586	591	**+86**
Interpret/ Evaluate	513	526	565	597	602	**+89**

Source: Appendix Table A3.36.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by parents' expectation of pupil education level are shown in Figure 3.11. While percentage differences between the *complete up to Leaving Certificate* and the *complete a Post-Leaving Certificate (PLC) course or apprenticeship* were not statistically significant across any of the benchmarks, percentage differences between the *complete up to Leaving Certificate* and the *complete a third-level certificate or diploma (not to degree level)*, *complete an undergraduate degree (e.g., Bachelor's)*, and *complete a postgraduate degree (e.g., Master's or Doctorate)* categories were statistically significant across all benchmarks except for the Low Benchmark, with the *complete up to Leaving Certificate* category tending to have a disadvantage compared to the rest.

Figure 3.11: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by parental educational expectations for pupils (2021)



Source: Appendix Table A3.37.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 asked pupils' parents about the highest education level they expect their child to complete. Although percentages of pupils who were expected to *complete up to Leaving Certificate* and *complete a Post-Leaving Certificate (PLC) course or apprenticeship* remained relatively stable across years, percentages of pupils who were expected to *complete a third-level certificate or diploma (not to degree level)* and *complete an undergraduate degree (e.g., Bachelor's)* slightly decreased, and percentages of pupils who were expected to *complete a postgraduate degree (e.g., Master's or Doctorate)* increased (mostly between 2011 and 2016). Mean differences for overall reading achievement and across the four subscales between the *complete up to Leaving Certificate* and the *complete a postgraduate degree (e.g., Master's or Doctorate)* categories, favouring the latter, were statistically significant and similar in magnitude across all three PIRLS cycles, ranging between 86 and 93 points in 2011, 83 and 95 points in 2016, and 86 and 94 points in 2021 (Table 3.19).

Table 3.19: Percentages and mean reading achievement of pupils in Ireland, by parental educational expectations for pupils (2011, 2016, 2021)

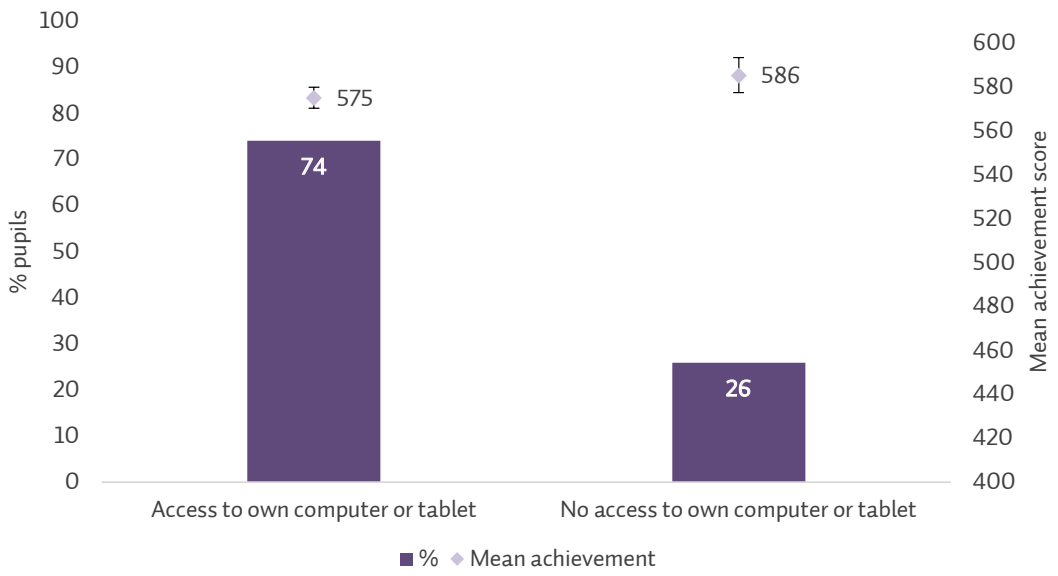
		Complete up to Leaving Certificate		Complete a Post-Leaving Certificate (PLC) course or apprenticeship		Complete a third-level certificate or diploma (not to degree level)		Complete an undergraduate degree (e.g., Bachelor's)		Complete a postgraduate degree (e.g., Master's or Doctorate)		Mean difference between *complete up to Leaving Certificate* and *complete a postgraduate degree (e.g., Master's or Doctorate)*
		%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	
Overall	**2011**	5	492	5	504	20	531	42	566	27	582	**+89**
	2016	5	501	3	497	11	536	48	575	34	591	**+90**
	2021	5	509	5	525	17	558	39	593	35	599	**+90**
Literary	**2011**	5	498	5	508	20	535	42	570	27	591	**+93**
	2016	5	511	3	515	11	541	48	580	34	594	**+83**
	2021	5	515	5	530	17	568	39	598	35	604	**+89**
Informational	**2011**	5	492	5	501	20	530	42	563	27	578	**+86**
	2016	5	495	3	482	11	534	48	574	34	590	**+95**
	2021	5	502	5	521	17	554	39	590	35	596	**+94**
Retrieve/Infer	**2011**	5	491	5	501	20	531	42	567	27	581	**+89**
	2016	5	502	3	496	11	533	48	575	34	592	**+90**
	2021	5	505	5	524	17	554	39	586	35	591	**+86**
Interpret/Evaluate	**2011**	5	497	5	505	20	532	42	567	27	586	**+89**
	2016	5	500	3	496	11	540	48	578	34	593	**+93**
	2021	5	513	5	526	17	565	39	597	35	602	**+89**

Source: Appendix Table A3.38.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. The *Complete a third-level certificate or diploma (not to degree level)* category was phrased slightly differently in 2011 and 2016, though still capturing the same education level/degree; in 2011, it was *Complete a certificate or diploma (e.g., from an Institute of Technology)* and, in 2016, it was *A third-level cert. or diploma NOT to degree level (e.g., from an Institute of Technology)*. Similarly, the *Complete an undergraduate degree (e.g., Bachelor's)* category was phrased as *Complete a degree* and *A degree* in 2011 and 2016, respectively.

Access to own computer or tablet

Pupils were asked about whether they had their own computer or tablet at home. Figure 3.12 shows the percentages and mean achievement of pupils by whether or not they had their own computer or tablet at home in Ireland in 2021. Based on pupils' reports, approximately three out of four had their own computer or tablet, while one out of four did not. Pupils with their own computer or tablet achieved a statistically significantly lower mean score (575) than their peers without their own computer or tablet (586).

Figure 3.12: Percentages and mean achievement of pupils in Ireland by access to own computer or tablet, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.39.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.20 shows the percentages and mean achievement of pupils with *access to own computer or tablet* at home and pupils with *no access to own computer or tablet* at home in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, as in all reference countries, the majority of pupils reported having their own computer or tablet at home, with the lowest percentage noted in Finland (55%). In most of the countries, the mean achievement difference between the two groups of pupils was not statistically significant. Among the statistically significant mean differences, two (in Ireland and Hong Kong) were in favour of pupils with *no access to own computer or tablet* and two (in Lithuania and New Zealand) were in favour of pupils with *access to own computer or tablet*.

Table 3.20: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by access to own computer or tablet (2021)

		Overall mean	Access to own computer or tablet		No access to own computer or tablet		Mean difference between *access* and *no access to own computer or tablet*
			%	Mean	%	Mean	
Start G5	Ireland	577	74	575	26	586	**+10**
	Northern Ireland	566	82	565	18	573	+7
	Croatia	557	74	559	26	553	-6
	Lithuania	552	75	555	25	547	**-8**
End G4	Australia ⋈	540	78	541	22	542	0
	England ⋈	558	80	558	20	558	0
	Hong Kong SAR	573	68	569	32	582	**+13**
	Poland	549	81	549	19	553	+4
	Finland	549	55	548	45	552	+4
	New Zealand	521	68	530	32	512	**-17**
	Singapore	587	60	586	40	590	+3
	PIRLS	503	61	505	39	500	**-5**

Source: Appendix Table A3.39.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on access to own computer or tablet were not available for the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Tables 3.21 and 3.22 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils by whether or not they had their own computer or tablet at home in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, mean achievement differences between pupils with and without their own computer or tablet were statistically significant for the Informational and Retrieve/Infer subscales, but not for the other two subscales. Reflecting the patterns noted for overall reading achievement, the magnitude and direction of mean achievement differences between the two groups of pupils varied across countries.

Table 3.21: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by access to own computer or tablet (2021)

		Literary			Informational		
		Access to own computer or tablet	**No access to own computer or tablet**	**Mean difference between *access* and *no access to own computer or tablet***	**Access to own computer or tablet**	**No access to own computer or tablet**	**Mean difference between *access* and *no access to own computer or tablet***
Start G5	Ireland	583	589	+6	572	582	**+10**
	Northern Ireland	572	581	+9	561	567	+5
	Croatia	568	566	-2	555	548	-7
	Lithuania	555	547	**-8**	556	546	**-9**
End G4	Australia ⋈	545	544	-1	540	541	+1
	England ⋈	559	559	0	560	559	-1
	Hong Kong SAR	560	575	**+15**	579	592	**+14**
	Poland	552	556	+4	548	552	+4
	Finland	545	550	+5	549	553	**+5**
	New Zealand	532	514	**-18**	529	511	**-18**
	Singapore	592	593	+1	586	589	+3
	PIRLS	506	501	**-5**	505	499	**-6**

Source: Appendix Tables A3.40 and A3.41.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on access to own computer or tablet were not available for the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

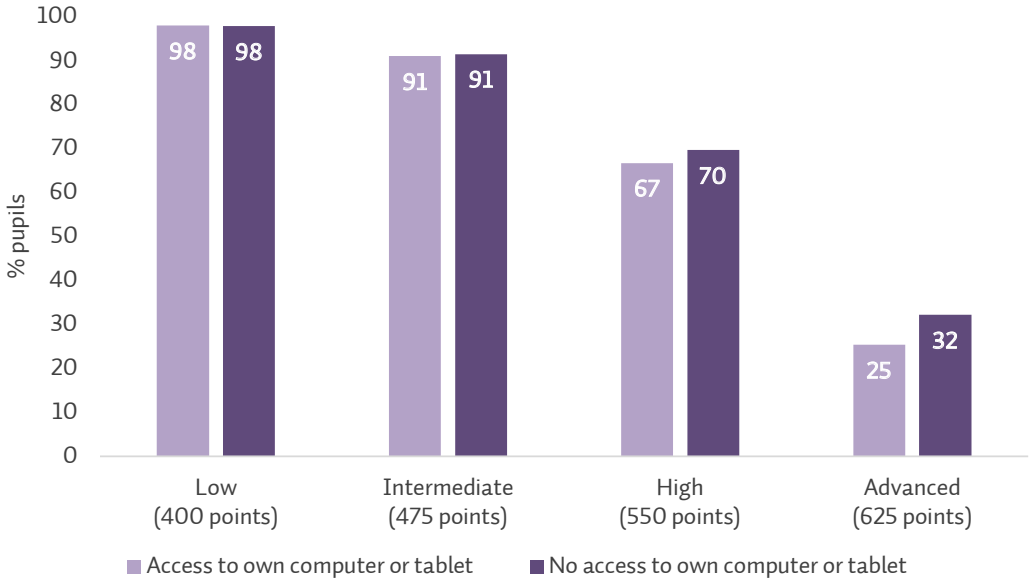
Table 3.22: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by access to own computer or tablet (2021)

		Retrieve/Infer			Interpret/Evaluate		
		Access to own computer or tablet	**No access to own computer or tablet**	**Mean difference between *access* and *no access to own computer or tablet***	**Access to own computer or tablet**	**No access to own computer or tablet**	**Mean difference between *access* and *no access to own computer or tablet***
Start G5	Ireland	569	580	**+10**	581	588	+7
	Northern Ireland	557	563	+5	573	579	+6
	Croatia	555	547	-8	563	559	-4
	Lithuania	557	549	-8	554	544	**-9**
End G4	Australia ⋈	535	534	-1	548	548	0
	England ⋈	555	557	+2	562	560	-3
	Hong Kong SAR	574	585	**+10**	568	584	**+16**
	Poland	545	550	+5	553	554	+2
	Finland	548	552	+4	548	552	+4
	New Zealand	529	512	**-16**	531	512	**-20**
	Singapore	583	586	+3	591	592	+1
	PIRLS	505	500	**-5**	506	499	**-6**

Source: Appendix Tables A3.42 and A3.43.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on access to own computer or tablet were not available for the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by whether or not they had their own computer or tablet at home are shown in Figure 3.13. Percentages of pupils reaching the Low and Intermediate Benchmarks were identical between the two groups of pupils. At the High Benchmark, there was a difference of three percentage points, which was not statistically significant, while at the Advanced Benchmark, the difference of seven percentage points (25% vs 32%), favouring pupils without their own computer or tablet, was statistically significant.

Figure 3.13: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by access to own computer or tablet (2021)



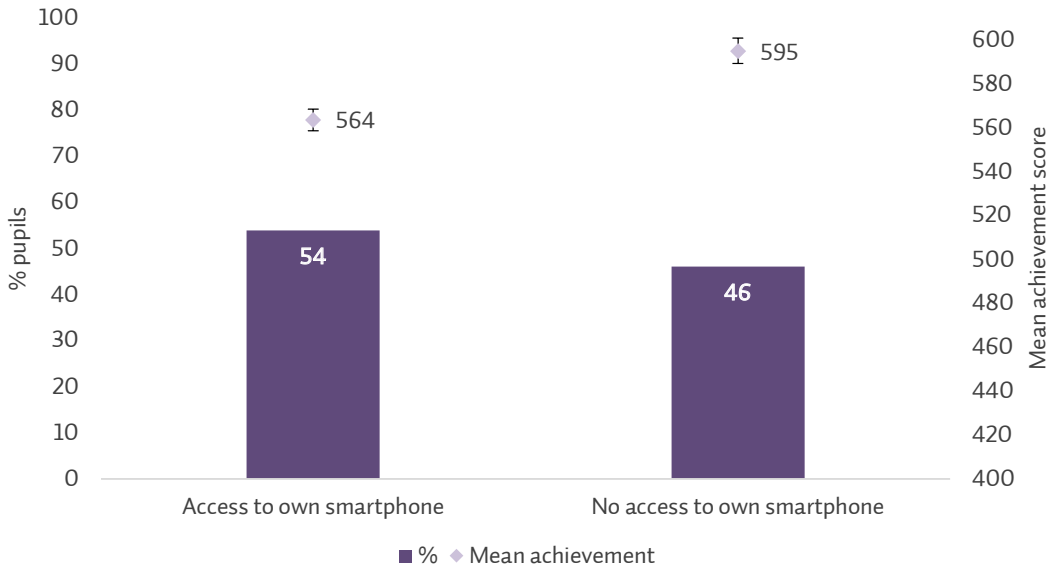
Source: Appendix Table A3.44.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

In previous PIRLS cycles, pupils were asked about their access to a computer at home (in 2011) or access to a computer or tablet at home (in 2016), but not specifically about access to *their own* computer/tablet. This means that pupils with access to a shared computer/tablet at home would have said *yes* to these questions in 2011 and 2016, while in 2021, access to a shared computer/tablet was captured through a separate question. Hence, comparisons of the 2021 data to previous cycles can be misleading and are not reported here.

Access to own smartphone

Pupils were asked about whether they had their own smartphone at home. Figure 3.14 shows the percentages and mean achievement of pupils by whether or not they had their own smartphone in Ireland in 2021. More than half of pupils reported having their own smartphone. Pupils who had their own smartphone achieved a statistically significantly lower mean score (564) than their peers who did not have their own smartphone (595), a difference approaching one-third of a standard deviation.

Figure 3.14: Percentages and mean achievement of pupils in Ireland by access to own smartphone, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.45.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.23 shows the percentages and mean achievement of pupils with *access to own smartphone* and pupils with *no access to own smartphone* in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The proportions of pupils owning a smartphone varied across the reference countries (with percentages ranging from 34% in Australia to 98% in Finland) as did the magnitude and direction of mean achievement differences between the two groups of pupils. The mean difference between the two groups of pupils was statistically significant for each of the countries, but in seven countries (including Ireland) this difference was in favour of pupils who did not have their own smartphone and in three countries the difference was in favour of pupils who had their own smartphone.

Table 3.23: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by access to own smartphone (2021)

		Overall mean	Access to own smartphone		No access to own smartphone		Mean difference between *access* and *no access to own smartphone*
			%	Mean	%	Mean	
Start G5	Ireland	577	54	564	46	595	**+32**
	Northern Ireland	566	65	558	35	583	**+25**
	Croatia	557	92	561	8	517	**-44**
	Lithuania	552	96	555	4	500	**-55**
End G4	Australia ⋈	540	34	525	66	550	**+25**
	England ⋈	558	62	552	38	567	**+15**
	Hong Kong SAR	573	61	565	39	586	**+21**
	Poland	549	93	551	7	532	**-18**
	Finland	549	98	551	2	~	~
	New Zealand	521	36	512	64	531	**+19**
	Singapore	587	61	581	39	597	**+15**
	PIRLS	503	64	502	36	497	**-5**

Source: Appendix Table A3.45.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on access to own smartphone were not available for the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

Tables 3.24 and 3.25 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils by whether or not they had their own smartphone in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, mean differences were similar in magnitude across the four subscales. Reflecting the patterns noted for overall reading achievement, the magnitude and direction of mean achievement differences between the two groups of pupils varied across countries.

Table 3.24: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by access to own smartphone (2021)

		Literary			Informational		
		Access to own smartphone	**No access to own smartphone**	**Mean difference between *access* and *no access* to own smartphone**	**Access to own smartphone**	**No access to own smartphone**	**Mean difference between *access* and *no access* to own smartphone**
Start G5	Ireland	570	602	**+32**	559	593	**+34**
	Northern Ireland	565	589	**+24**	553	580	**+27**
	Croatia	572	520	**-52**	557	513	**-44**
	Lithuania	555	504	**-51**	556	496	**-59**
End G4	Australia ⋈	528	553	**+25**	525	548	**+24**
	England ⋈	553	567	**+14**	553	571	**+18**
	Hong Kong SAR	556	578	**+22**	575	595	**+21**
	Poland	554	535	**-19**	550	528	**-22**
	Finland	549	~	~	553	~	~
	New Zealand	515	532	**+17**	510	531	**+21**
	Singapore	587	600	**+13**	581	596	**+16**
	PIRLS	503	497	**-6**	501	497	**-4**

Source: Appendix Tables A3.46 and A3.47.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on access to own smartphone were not available for the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

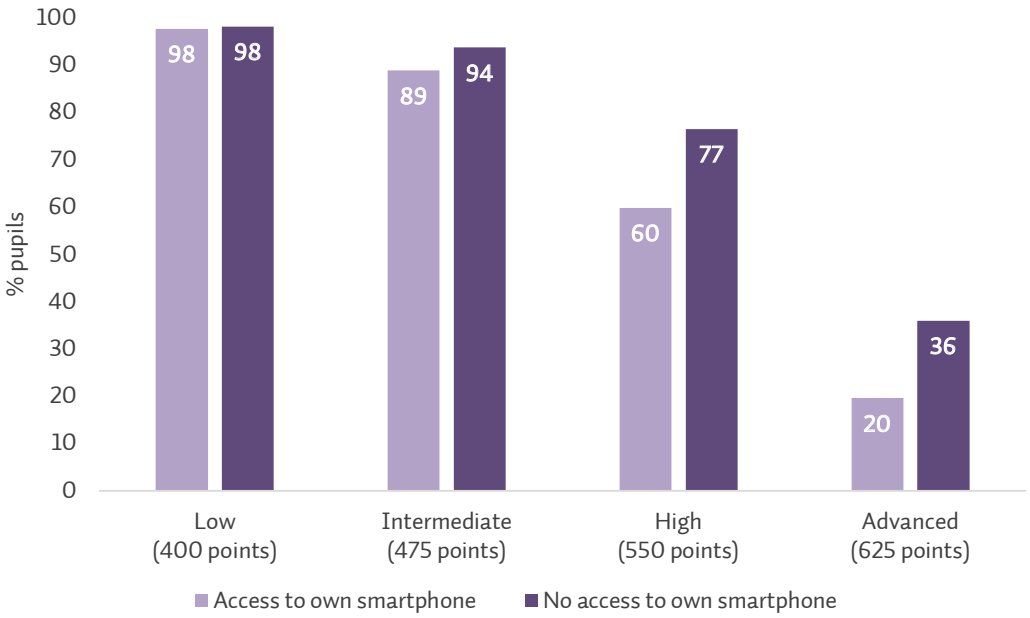
Table 3.25: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by access to own smartphone (2021)

		Retrieve/Infer			Interpret/Evaluate		
		Access to own smartphone	**No access to own smartphone**	**Mean difference between *access* and *no access to own smartphone***	**Access to own smartphone**	**No access to own smartphone**	**Mean difference between *access* and *no access to own smartphone***
Start G5	Ireland	558	588	**+30**	569	599	**+30**
	Northern Ireland	549	576	**+26**	566	590	**+24**
	Croatia	557	512	**-45**	565	522	**-43**
	Lithuania	558	500	**-57**	554	502	**-52**
End G4	Australia ⋈	518	544	**+26**	532	557	**+24**
	England ⋈	549	565	**+16**	556	571	**+16**
	Hong Kong SAR	569	591	**+21**	564	586	**+22**
	Poland	547	530	**-17**	554	535	**-20**
	Finland	552	~	~	551	~	~
	New Zealand	510	530	**+20**	512	532	**+19**
	Singapore	578	593	**+15**	585	600	**+15**
	PIRLS	502	496	**-5**	502	497	**-5**

Source: Appendix Tables A3.48 and A3.49.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on access to own smartphone were not available for the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by whether or not they had their own smartphone are shown in Figure 3.15. Percentages of pupils reaching the Low Benchmark were identical between the two groups of pupils. At the Intermediate Benchmark, there was a statistically significant difference of five percentage points, favouring pupils who did not have their own smartphone. Percentage differences increased in magnitude at the High and Advanced Benchmarks, going up to 17 and 16 points, respectively, again, favouring those pupils who did not have their own smartphone.

Figure 3.15: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by access to own smartphone (2021)



Source: Appendix Table A3.50.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 asked pupils about whether they owned a smartphone. However, in 2011, pupils were asked about whether they owned an iPhone rather than a smartphone more generally. This means that it is likely that pupils owning a smartphone other than an iPhone responded *no* to this question in 2011, and this needs to be considered in the interpretation of the data in Table 3.26. Notably, percentages of pupils reporting that they own a smartphone were identical in 2016 and 2021. Across all three cycles, pupils who reported owning a smartphone achieved statistically significantly lower scores than their peers who reported not owning one (Table 3.26).

Table 3.26: Percentages and mean reading achievement of pupils in Ireland, by access to own smartphone (2011, 2016, 2021)

		Access to own smartphone		No access to own smartphone		Mean difference between *access* and *no access to own smartphone*
		%	Mean	%	Mean	
Overall	**2011**	13	506	87	559	**+53**
	2016	54	553	46	583	**+29**
	2021	54	564	46	595	**+32**
Literary	**2011**	13	507	87	565	**+58**
	2016	54	560	46	585	**+26**
	2021	54	570	46	602	**+32**
Informational	**2011**	13	506	87	556	**+50**
	2016	54	551	46	582	**+31**
	2021	54	559	46	593	**+34**
Retrieve/Infer	**2011**	13	505	87	559	**+54**
	2016	54	553	46	582	**+30**
	2021	54	558	46	588	**+30**
Interpret/Evaluate	**2011**	13	508	87	561	**+53**
	2016	54	556	46	585	**+29**
	2021	54	569	46	599	**+30**

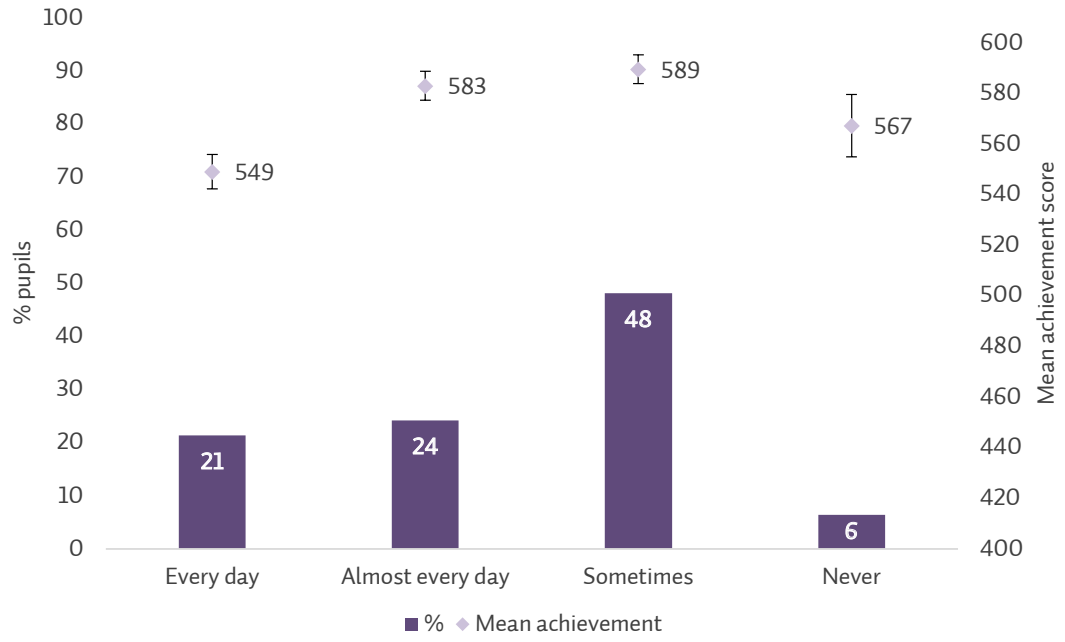
Source: Appendix Table A3.51.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. The differences in the percentages of pupils in each category and the corresponding mean differences across cycles should be interpreted considering that in 2011 pupils were asked about access to their own *iPhone* at home, while in 2016 and 2021, they were asked about access to their own *smartphone* at home. This means that pupils owning smartphones other than an iPhone might be included in the *no access to own smartphone* for 2011.

Wellbeing

Feeling tired upon arrival at school

Pupils were asked about the frequency with which they felt tired upon school arrival, with response options ranging from *every day* to *never*. Figure 3.16 shows the percentages and mean achievement of pupils who arrived at school tired *every day*, *almost every day*, *sometimes*, and *never* in Ireland in 2021. As mentioned in the PIRLS 2021 national report for Ireland by Delaney et al. (2023), approximately half of pupils (48%) reported that they *sometimes* felt tired when they arrived at school, 24% and 21% that they felt that way *almost every day* and *every day*, respectively, and 6% that they *never* felt that way. Pupils who reported feeling tired when they arrived at school *every day* achieved the lowest mean score (549), which was statistically significantly lower than the scores of the rest of their peers.

Figure 3.16: Percentages and mean achievement of pupils in Ireland by frequency of feeling tired upon arriving at school, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.52.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.27 shows the percentages and mean achievement of pupils by the frequency with which they felt tired upon school arrival in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Although within each of the countries, including Ireland, the highest concentration of pupils was noted in the *sometimes* category, the frequency with which pupils felt tired upon school arrival varied to some extent across the reference countries. The highest percentage of pupils feeling tired upon school arrival *every day* was noted in New Zealand (30%), and the lowest was noted in Finland (12%). Notably, these two countries had the lowest percentages of pupils (5%, respectively) reporting *never* feeling tired upon school arrival. While, in most countries, achievement was highest for pupils reporting *sometimes* feeling tired, the achievement of the two most extreme categories (*every day* and *never*) is compared in Table 3.27. Mean differences across all countries were in favour of the *never* category, but in four countries this difference was not statistically significant.

Table 3.27: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of feeling tired upon arriving at school (2021)

		Overall mean	Every day		Almost every day		Sometimes		Never		Mean difference between *every day* and *never*
			%	Mean	%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	21	549	24	583	48	589	6	567	**+18**
	Northern Ireland	566	26	543	24	574	45	578	6	559	+16
	Croatia	557	25	546	20	562	47	561	8	561	+15
	Lithuania	552	23	535	27	558	44	562	7	543	+8
End G4	Australia ⋈	540	21	512	24	543	46	555	10	540	**+28**
	England ⋈	558	24	533	23	563	47	570	6	557	**+24**
	Hong Kong SAR	573	14	554	14	572	59	577	13	578	**+24**
	Poland	549	23	523	20	543	46	566	10	553	**+30**
	Finland	549	12	518	25	548	58	558	5	542	**+23**
	New Zealand	521	30	501	26	533	39	545	5	510	+9
	Singapore	587	27	568	21	596	43	596	9	588	**+19**
	PIRLS	503	20	480	17	506	46	516	17	503	**+23**

Source: Appendix Table A3.52.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on frequency of feeling tired upon arriving at school were not available for Belgium (French).
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Tables 3.28 and 3.29 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils by the frequency with which they felt tired upon school arrival in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, pupils who indicated that they felt tired upon school arrival *every day* achieved statistically significantly lower scores compared to their peers who indicated that they *never* felt tired across three of the four subscales (the mean difference on the Literary subscale was of similar magnitude to the rest of the differences, but it was not statistically significant). A similar pattern was noted in the majority of the countries.

Table 3.28: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of feeling tired upon arriving at school (2021)

		Literary					Informational				
		Every day	**Almost every day**	**Sometimes**	**Never**	**Mean difference between *every day* and *never***	**Every day**	**Almost every day**	**Sometimes**	**Never**	**Mean difference between *every day* and *never***
Start G5	Ireland	555	589	596	572	+17	546	578	587	563	**+17**
	Northern Ireland	552	583	583	567	+15	539	568	574	555	+16
	Croatia	556	574	572	564	+8	543	558	556	559	+16
	Lithuania	535	560	561	544	+10	534	558	563	543	+9
End G4	Australia ⋈	513	548	558	542	**+29**	511	543	552	543	**+32**
	England ⋈	533	564	570	559	**+26**	534	563	572	557	**+22**
	Hong Kong SAR	545	560	570	569	**+25**	563	586	586	588	**+25**
	Poland	525	549	569	555	**+30**	523	541	565	551	**+28**
	Finland	518	545	556	537	+19	518	549	559	541	**+23**
	New Zealand	504	535	546	509	+6	499	533	544	512	+13
	Singapore	572	602	601	588	**+16**	567	595	595	589	**+22**
	PIRLS	481	508	517	502	**+22**	479	505	515	503	**+25**

Source: Appendix Tables A3.53 and A3.54.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on frequency of feeling tired upon arriving at school were not available for Belgium (French).
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries)

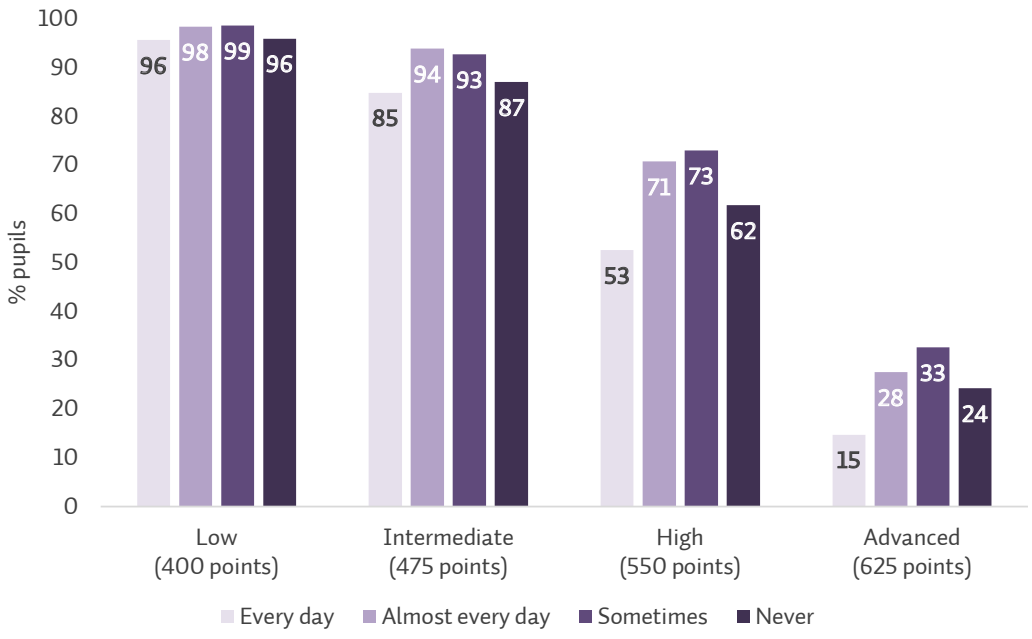
Table 3.29: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of feeling tired upon arriving at school (2021)

		Retrieve/Infer					Interpret/Evaluate				
		Every day	**Almost every day**	**Sometimes**	**Never**	**Mean difference between *every day* and *never***	**Every day**	**Almost every day**	**Sometimes**	**Never**	**Mean difference between *every day* and *never***
Start G5	Ireland	544	576	583	562	**+18**	555	589	593	571	**+17**
	Northern Ireland	536	567	568	554	+18	553	580	585	565	+13
	Croatia	541	559	556	557	**+16**	553	566	565	565	+11
	Lithuania	538	558	564	549	+11	533	559	560	538	+4
End G4	Australia ⋈	505	539	547	533	**+28**	518	549	562	550	**+32**
	England ⋈	529	560	566	560	**+31**	537	565	574	557	**+20**
	Hong Kong SAR	555	577	581	585	**+30**	554	570	577	578	**+24**
	Poland	521	540	561	550	**+29**	525	547	570	556	**+31**
	Finland	518	547	560	540	**+22**	519	550	556	542	**+23**
	New Zealand	501	532	544	509	+8	502	535	545	513	+12
	Singapore	566	593	592	584	**+18**	573	599	600	592	**+18**
	PIRLS	479	505	515	503	**+24**	480	507	516	503	**+23**

Source: Appendix Tables A3.55 and A3.56.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on frequency of feeling tired upon arriving at school were not available for Belgium (French).
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the frequency with which they felt tired upon school arrival are shown in Figure 3.17. Notably, pupils in the *every day* category had a statistically significant disadvantage compared to their peers in the *almost every day* and *sometimes* categories across all four benchmarks, with this disadvantage ranging between two percentage points at the Low Benchmark and 20 percentage points at the High Benchmark. The percentages of pupils reaching each of the benchmarks did not statistically significantly differ, though, between the *every day* and *never* categories.

Figure 3.17: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by frequency of feeling tired upon arriving at school (2021)



Source: Appendix Table A3.57.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The question related to pupil tiredness upon school arrival was included in the 2016 but not in the 2011 pupil questionnaire. The percentage of pupils feeling tired *every day* or *almost every day* increased between 2016 and 2021 by more than 10 percentage points (33% vs 46%) and, accordingly, the percentage of pupils *sometimes* or *never* feeling tired decreased (67% vs 54%). Mean achievement differences between pupils who reported feeling tired upon school arrival *every day* and those who reported *never* or *sometimes* feeling this way narrowed between 2016 and 2021 by more than 10 points and up to nine points, on average, respectively, across both overall reading achievement and all subscales (Table 3.30).

Table 3.30: Percentages and mean reading achievement of pupils in Ireland, by frequency of feeling tired upon arriving at school (2016, 2021)

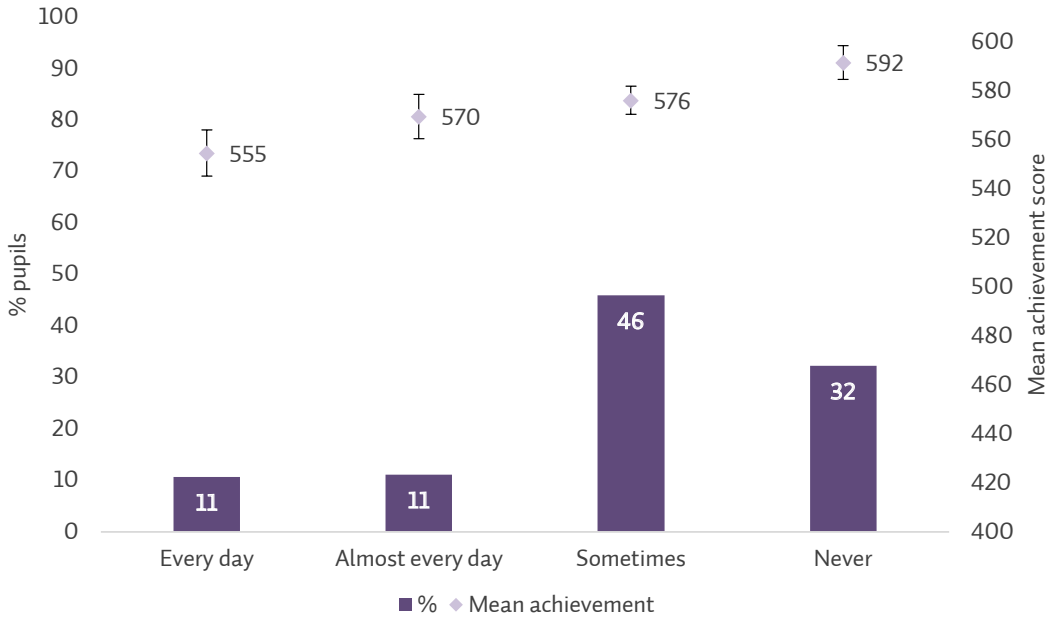
		Every day		Almost every day		Sometimes		Never		Mean difference between *every day* and *never*
		%	Mean	%	Mean	%	Mean	%	Mean	
Overall	**2016**	16	531	17	574	55	577	12	560	**+29**
	2021	21	549	24	583	48	589	6	567	**+18**
Literary	**2016**	16	535	17	581	55	581	12	567	**+33**
	2021	21	555	24	589	48	596	6	572	+17
Informational	**2016**	16	528	17	572	55	576	12	556	**+28**
	2021	21	546	24	578	48	587	6	563	**+17**
Retrieve/Infer	**2016**	16	531	17	574	55	577	12	559	**+28**
	2021	21	544	24	576	48	583	6	562	**+18**
Interpret/Evaluate	**2016**	16	533	17	577	55	580	12	564	**+31**
	2021	21	555	24	589	48	593	6	571	**+17**

Source: Appendix Table A3.58.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. The question about the frequency of pupils feeling tired upon arriving at school was introduced in PIRLS 2016, so there are no available data for PIRLS 2011.

Feeling hungry upon arrival at school

Pupils were asked about the frequency with which they felt hungry upon school arrival, with response options ranging from *every day* to *never*. Figure 3.18 shows the percentages and mean achievement of pupils who arrived at school hungry *every day*, *almost every day*, *sometimes*, and *never* in Ireland in 2021. Approximately half of pupils (46%) reported that they *sometimes* felt hungry when they arrived at school, 11% that they felt that way *almost every day* and *every day*, respectively, and 32% that they *never* felt that way. Pupils who reported feeling hungry when they arrived at school *every day* achieved the lowest mean score (555), which was statistically significantly lower than the scores of their peers in the *sometimes* and *never* categories.

Figure 3.18: Percentages and mean achievement of pupils in Ireland by frequency of feeling hungry upon arriving at school, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.59.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.31 shows the percentages and mean achievement of pupils by the frequency with which they felt hungry upon school arrival in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Although within each of the countries, including Ireland, the highest concentration of pupils was noted in the *sometimes* category (with only one exception – Poland – having the highest concentration in the *never* category), the frequency with which pupils felt hungry upon school arrival varied to some extent across the reference countries. The highest percentage of pupils feeling hungry upon school arrival *every day* was noted in New Zealand (28%), and the lowest was noted in Ireland and Finland (11%). Croatia had the lowest percentage of pupils (14%) reporting *never* feeling hungry upon school arrival. Mean achievement differences between the *every day* and *never* categories, going up to 55 points and all in favour of the *never* category, were statistically significant across all countries except for Hong Kong.

Table 3.31: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of feeling hungry upon arriving at school (2021)

		Overall mean	Every day		Almost every day		Sometimes		Never		Mean difference between *every day* and *never*
			%	Mean	%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	11	555	11	570	46	576	32	592	**+37**
	Northern Ireland	566	19	544	13	554	42	570	26	586	**+41**
	Croatia	557	25	542	19	554	41	568	14	562	**+19**
	Lithuania	552	18	540	19	550	43	558	20	567	**+26**
End G4	Australia ⋈	540	20	510	14	538	43	550	23	558	**+48**
	England ⋈	558	19	535	15	553	41	562	25	577	**+42**
	Hong Kong SAR	573	21	564	18	577	45	578	17	570	+6
	Poland	549	13	519	9	538	35	550	42	568	**+49**
	Finland	549	11	521	17	538	51	556	21	568	**+47**
	New Zealand	521	28	499	16	515	37	540	20	554	**+55**
	Singapore	587	19	558	14	575	41	593	26	612	**+54**
	PIRLS	503	21	486	14	500	39	513	26	518	**+33**

Source: Appendix Table A3.59.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on frequency of feeling hungry upon arriving at school were not available for Belgium (French).
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Tables 3.32 and 3.33 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils by the frequency with which they felt hungry upon school arrival in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, across all subscales, pupils who indicated that they felt hungry upon school arrival *every day* achieved statistically significantly lower scores compared to their peers who indicated that they *never* felt hungry, and the magnitude of these differences was similar across the subscales. A similar pattern was noted in all countries except for Hong Kong, where the mean achievement differences between the two groups of pupils were not statistically significant on any subscale.

Table 3.32: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of feeling hungry upon arriving at school (2021)

		Literary					Informational				
		Every day	**Almost every day**	**Sometimes**	**Never**	**Mean difference between *every day* and *never***	**Every day**	**Almost every day**	**Sometimes**	**Never**	**Mean difference between *every day* and *never***
Start G5	Ireland	559	576	584	597	**+38**	553	564	573	588	**+36**
	Northern Ireland	555	563	577	591	**+36**	539	552	566	582	**+42**
	Croatia	557	563	577	572	**+15**	538	549	564	558	**+20**
	Lithuania	544	551	556	567	**+23**	539	552	559	566	**+26**
End G4	Australia ⋈	515	541	553	561	**+46**	509	537	549	557	**+48**
	England ⋈	536	553	562	578	**+43**	533	556	564	580	**+48**
	Hong Kong SAR	556	566	569	563	+7	574	589	586	579	+6
	Poland	523	542	553	570	**+48**	516	534	550	567	**+51**
	Finland	525	535	553	565	**+40**	519	540	557	570	**+51**
	New Zealand	501	517	544	551	**+50**	497	513	540	553	**+56**
	Singapore	563	580	598	614	**+52**	556	573	592	613	**+57**
	PIRLS	487	502	514	519	**+32**	485	499	513	518	**+33**

Source: Appendix Tables A3.60 and A3.61.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on frequency of feeling hungry upon arriving at school were not available for Belgium (French).
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

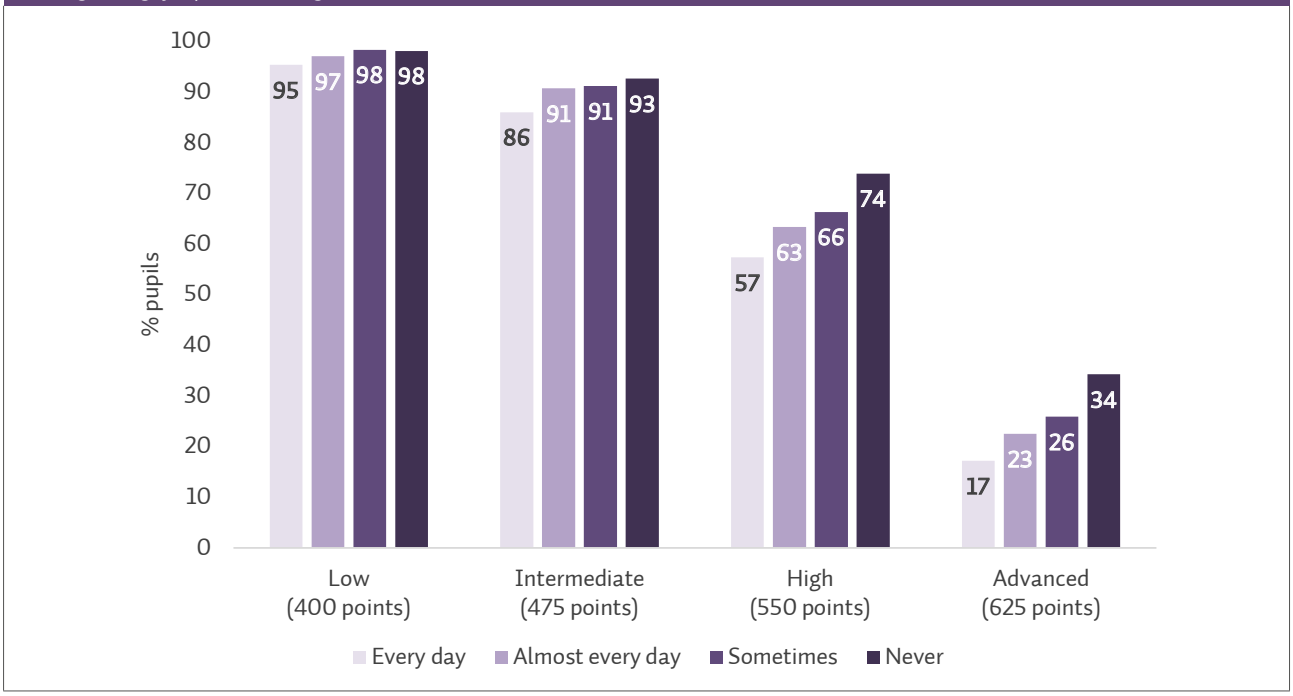
Table 3.33: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of feeling hungry upon arriving at school (2021)

		Retrieve/Infer					Interpret/Evaluate				
		Every day	**Almost every day**	**Sometimes**	**Never**	**Mean difference between *every day* and *never***	**Every day**	**Almost every day**	**Sometimes**	**Never**	**Mean difference between *every day* and *never***
Start G5	Ireland	549	566	571	584	**+35**	560	573	581	596	**+36**
	Northern Ireland	537	546	562	577	**+40**	554	564	577	593	**+39**
	Croatia	539	550	564	557	**+18**	549	558	571	569	**+20**
	Lithuania	540	553	560	570	**+29**	540	550	556	564	**+23**
End G4	Australia ⋈	505	529	544	550	**+46**	516	546	556	567	**+51**
	England ⋈	531	545	561	574	**+43**	538	557	565	582	**+43**
	Hong Kong SAR	565	583	582	577	+11	566	575	576	570	+3
	Poland	516	538	548	562	**+47**	522	539	554	571	**+50**
	Finland	520	537	557	570	**+50**	519	540	555	566	**+47**
	New Zealand	499	515	539	551	**+52**	497	514	542	557	**+60**
	Singapore	555	571	590	608	**+53**	562	579	596	616	**+54**
	PIRLS	485	500	513	518	**+32**	486	501	513	518	**+33**

Source: Appendix Tables A3.62 and A3.63.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 56 rather than 57 countries as data on frequency of feeling hungry upon arriving at school were not available for Belgium (French).
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the frequency with which they felt hungry upon school arrival are shown in Figure 3.19. Pupils in the *every day* category had a statistically significant disadvantage compared to their peers in the *never* category across the Intermediate, High, and Advanced Benchmarks, with this disadvantage ranging between seven percentage points at the Intermediate Benchmark and 17 percentage points at both the High and Advanced Benchmarks. Percentage differences with the *almost every day* and *sometimes* categories were less pronounced.

Figure 3.19: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by frequency of feeling hungry upon arriving at school (2021)



Source: Appendix Table A3.64.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The question related to pupil hunger upon school arrival was included in the 2016 but not in the 2011 pupil questionnaire. The percentage of pupils feeling hungry *every day*, *almost every day*, or *sometimes* increased between 2016 and 2021 by almost 10 percentage points (59% vs 68%) and, accordingly, the percentage of pupils *never* feeling hungry decreased (41% vs 32%). Mean achievement differences between pupils who reported feeling hungry upon school arrival *every day* and those who reported *never* feeling this way narrowed between 2016 and 2021 across both overall reading achievement and all subscales by approximately 20 points, on average (Table 3.34).

Table 3.34: Percentages and mean reading achievement of pupils in Ireland, by frequency of feeling hungry upon arriving at school (2016, 2021)

		Every day		Almost every day		Sometimes		Never		Mean difference between *every day* and *never*
		%	Mean	%	Mean	%	Mean	%	Mean	
Overall	**2016**	9	529	8	557	42	565	41	584	**+56**
	2021	11	555	11	570	46	576	32	592	**+37**
Literary	**2016**	9	535	8	560	42	570	41	589	**+54**
	2021	11	559	11	576	46	584	32	597	**+38**
Informational	**2016**	9	524	8	558	42	563	41	583	**+59**
	2021	11	553	11	564	46	573	32	588	**+36**
Retrieve/Infer	**2016**	9	529	8	554	42	564	41	585	**+56**
	2021	11	549	11	566	46	571	32	584	**+35**
Interpret/Evaluate	**2016**	9	532	8	559	42	568	41	586	**+55**
	2021	11	560	11	573	46	581	32	596	**+36**

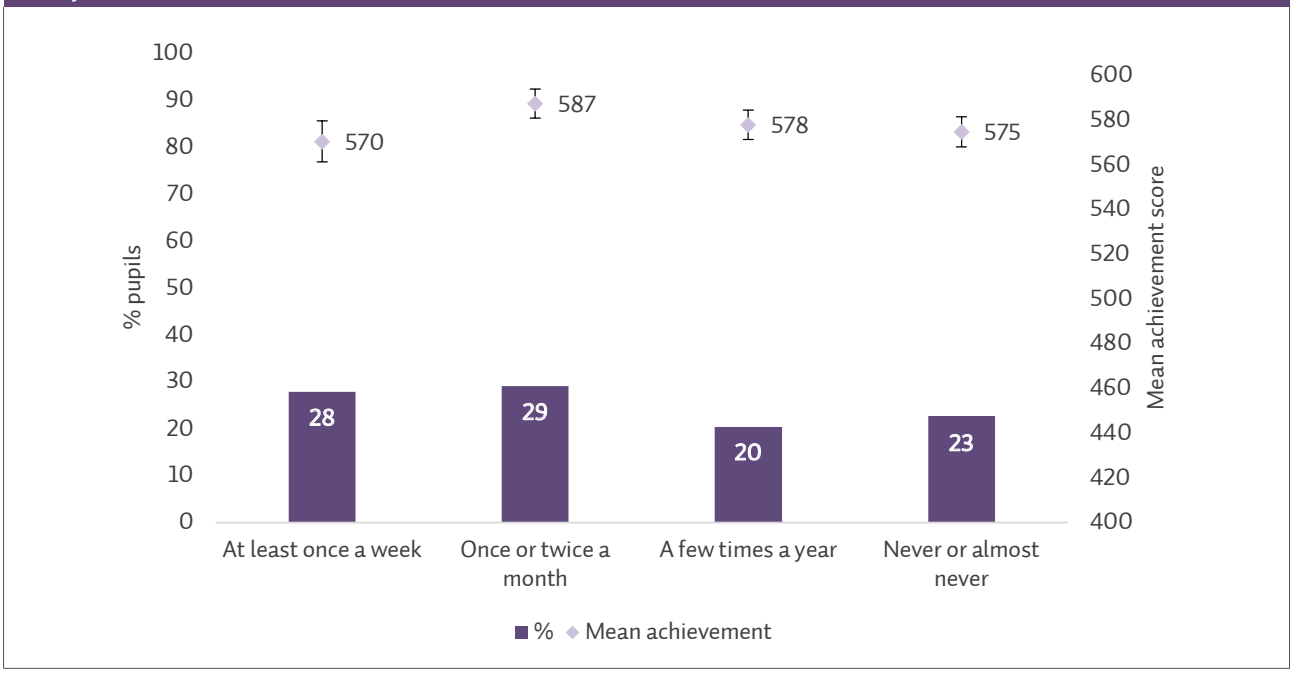
Source: Appendix Table A3.65.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. The question about the frequency of pupils feeling hungry upon arriving at school was introduced in PIRLS 2016, so there are no available data for PIRLS 2011.

Reading behaviours

Book borrowing from school/local library

Pupils were asked about the frequency with which they borrowed books or e-books from their school or local library, with response options ranging from *at least once a week* to *never or almost never*. Figure 3.20 shows the percentages and mean achievement of pupils who borrowed books or e-books from their school or local library *at least once a week*, *once or twice a month*, *a few times a year*, and *never or almost never* in Ireland in 2021. Approximately one-third of pupils, respectively, reported that they borrowed books or e-books from their school or local library *at least once a week* or *once or twice a month*, 20% that they did so *a few times a year*, and 23% that they *never or almost never* did so. Pupils who borrowed books or e-books from their school or local library *once or twice a month* achieved the highest mean score (587), which was statistically significantly higher than the score of those who borrowed books or e-books *at least once a week*, which was used as the reference category (570). The mean achievement difference between pupils who borrowed books or e-books from their school or local library *at least once a week* and those who *never or almost never* did so was not statistically significant.

Figure 3.20: Percentages and mean achievement of pupils in Ireland by frequency of using the school or local library, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.66.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.35 shows the percentages and mean achievement of pupils by the frequency with which they borrowed books or e-books from their school or local library in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The frequency with which pupils borrowed books or e-books from their school or local library varied across countries as did the magnitude and direction of mean achievement differences between the *at least once a week* and *never or almost never* categories. While this mean difference was in favour of the *never or almost never* category in Ireland (though it was not statistically significant), differences across countries seemed to favour either group, with most statistically significant differences favouring the *at least once a week* category.

Table 3.35: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of using the school or local library (2021)

		Overall mean	At least once a week		Once or twice a month		A few times a year		Never or almost never		Mean difference between *at least once a week* and *never or almost never*
			%	Mean	%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	28	570	29	587	20	578	23	575	+4
	Northern Ireland	566	34	561	30	582	18	569	19	553	-8
	Croatia	557	15	531	53	567	19	560	12	542	+11
	Lithuania	552	13	522	33	568	26	557	28	547	**+25**
End G4	Australia ⋈	540	56	546	17	552	13	537	13	513	**-33**
	England ⋈	558	35	552	28	569	17	556	20	556	+4
	Hong Kong SAR	573	31	581	34	579	22	565	12	552	**-29**
	Poland	549	12	534	31	557	38	555	18	540	+6
	Finland	549	20	543	44	562	24	548	11	523	**-21**
	New Zealand	521	51	527	20	539	13	517	16	496	**-31**
	Singapore	587	24	599	26	603	28	582	22	562	**-37**
	PIRLS	503	31	494	23	510	18	508	27	503	**+8**

Source: Appendix Table A3.66.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Tables 3.36 and 3.37 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils by the frequency with which they borrowed books or e-books from their school or local library in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, mean achievement differences between the *at least once a week* and *never or almost never* categories were similar in magnitude across the subscales and not statistically significant. Reflecting the patterns noted for overall reading achievement, the magnitude and direction of mean achievement differences between the *at least once a week* and *never or almost never* categories across the four subscales varied across countries.

Table 3.36: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of using the school or local library (2021)

		Literary					Informational				
		At least once a week	**Once or twice a month**	**A few times a year**	**Never or almost never**	**Mean difference between *at least once a week* and *never or almost never***	**At least once a week**	**Once or twice a month**	**A few times a year**	**Never or almost never**	**Mean difference between *at least once a week* and *never or almost never***
Start G5	Ireland	577	594	584	581	+4	566	585	575	569	+3
	Northern Ireland	569	588	576	559	-9	556	578	564	548	-8
	Croatia	539	578	569	555	+16	526	563	557	536	+10
	Lithuania	526	568	559	545	**+18**	520	569	558	549	**+29**
End G4	Australia ⋈	550	555	538	516	**-34**	545	552	535	511	**-34**
	England ⋈	554	567	560	555	+2	554	571	554	559	+5
	Hong Kong SAR	574	570	555	542	**-32**	589	589	574	563	**-25**
	Poland	535	561	558	542	+7	531	554	554	542	+10
	Finland	540	560	545	524	**-17**	545	562	550	524	**-22**
	New Zealand	530	539	518	500	**-30**	526	540	517	495	**-31**
	Singapore	602	609	586	566	**-36**	599	602	581	561	**-38**
	PIRLS	495	511	509	504	**+9**	493	510	507	502	**+8**

Source: Appendix Tables A3.67 and A3.68.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

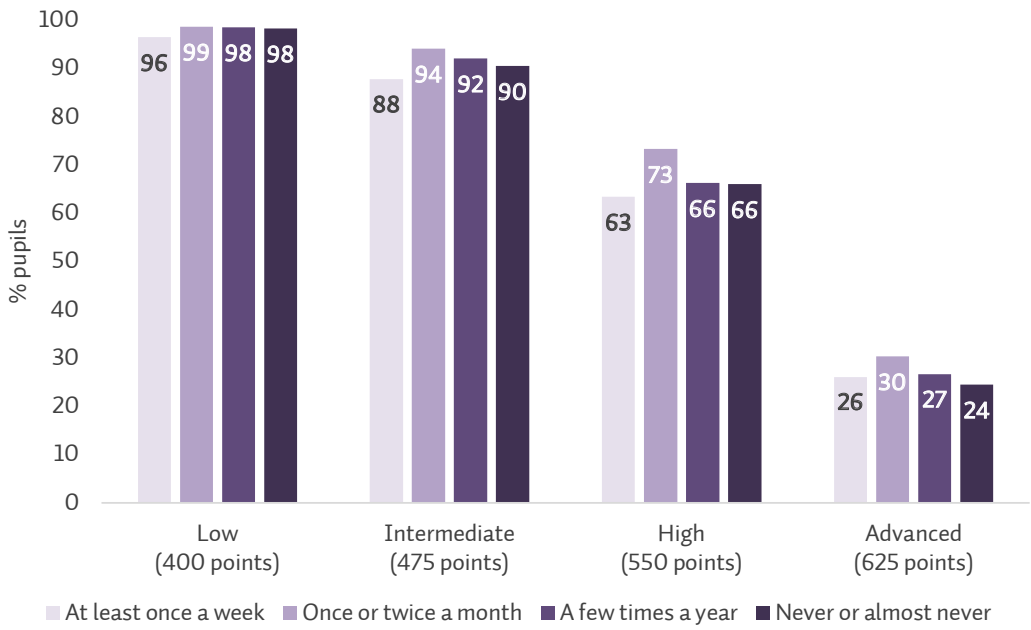
Table 3.37: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of using the school or local library (2021)

		Retrieve/Infer					Interpret/Evaluate				
		At least once a week	**Once or twice a month**	**A few times a year**	**Never or almost never**	**Mean difference between *at least once a week* and *never or almost never***	**At least once a week**	**Once or twice a month**	**A few times a year**	**Never or almost never**	**Mean difference between *at least once a week* and *never or almost never***
Start G5	Ireland	565	579	574	568	+3	576	592	581	580	+4
	Northern Ireland	552	575	561	542	-10	569	588	575	561	-8
	Croatia	526	563	556	536	+10	537	572	562	548	+12
	Lithuania	525	570	559	550	**+25**	520	568	556	546	**+26**
End G4	Australia ⋈	539	548	531	506	**-32**	555	554	542	523	**-32**
	England ⋈	549	565	554	553	+4	556	572	560	560	+4
	Hong Kong SAR	586	584	569	554	**-33**	579	579	563	554	**-25**
	Poland	527	554	552	537	+10	543	559	557	544	+1
	Finland	544	563	548	524	**-21**	543	561	548	525	**-19**
	New Zealand	526	539	518	498	**-27**	530	541	516	495	**-35**
	Singapore	595	601	578	558	**-37**	601	606	586	568	**-34**
	PIRLS	494	510	507	502	**+8**	495	510	508	503	**+8**

Source: Appendix Tables A3.69 and A3.70.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the frequency with which they borrowed books or e-books from their school or local library are shown in Figure 3.21. No clear pattern was noted in terms of percentage differences across the different categories, with most differences not being statistically significant. Across the four benchmarks, pupils in the *once or twice a month* category tended to have an advantage compared to the rest of their peers, but this advantage did not exceed 10 percentage points (noted in the High Benchmark).

Figure 3.21: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by frequency of using the school or local library (2021)



Source: Appendix Table A3.71.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 asked pupils about the frequency with which they borrowed books from their school or local library. Patterns observed in 2011 and 2016 were different to the ones noted in 2021. Firstly, the proportion of pupils who reported borrowing books or e-books from their school or local library *at least once a week* decreased across years (mostly between 2016 and 2021), going from 47% in 2011 to 28% in 2021, while the proportion of pupils who reported *never or almost never* doing so increased, going from 12% in 2011 to 23% in 2021. Secondly, while in 2021 pupils who reported borrowing books or e-books from their school or local library *at least once a week* achieved a slightly (though not statistically significantly) lower score than their peers who reported *never or almost never* doing so across both overall reading achievement and all subscales, the former group of pupils achieved statistically significantly higher scores than the latter group in 2011 and 2016, with this being consistent across both overall reading achievement and the four subscales (Table 3.38). However, these data need to be interpreted with caution given that the administration of PIRLS 2021 took place in the midst of the COVID-19 pandemic, and pupils' opportunities to use their school or local library were likely limited, or at least more limited compared to the previous PIRLS cycles.

Table 3.38: Percentages and mean reading achievement of pupils in Ireland, by frequency of using the school or local library (2011, 2016, 2021)

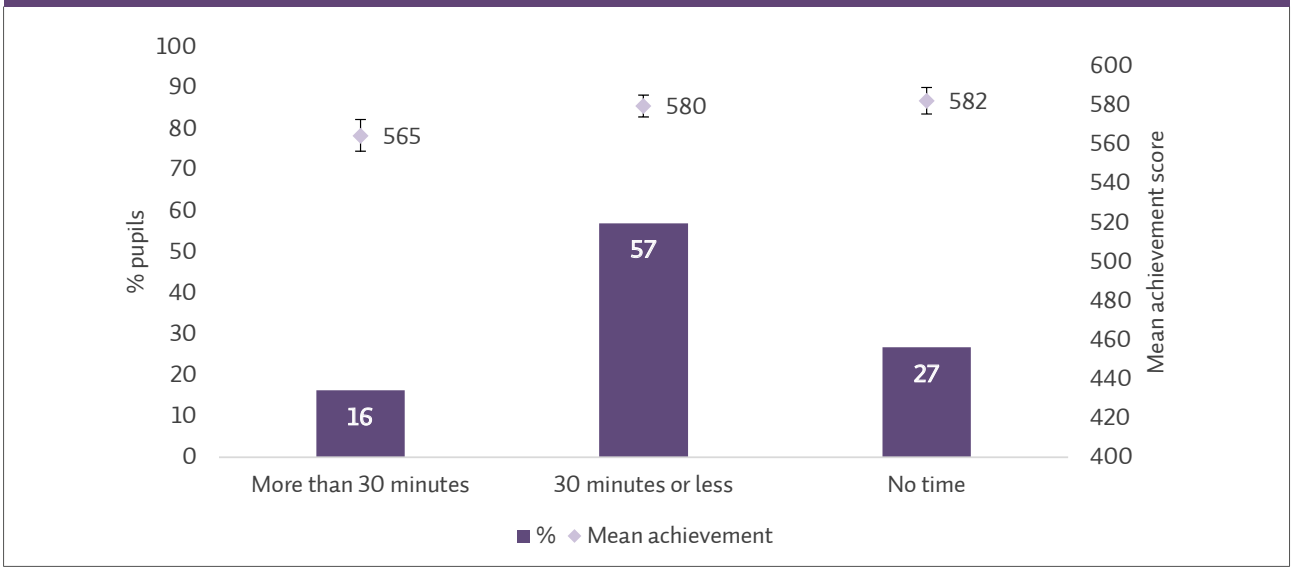
		At least once a week		Once or twice a month		A few times a year		Never or almost never		Mean difference between *at least once a week* and *never or almost never*
		%	Mean	%	Mean	%	Mean	%	Mean	
Overall	**2011**	47	549	26	568	15	553	12	530	**-19**
	2016	41	563	28	584	17	568	14	548	**-14**
	2021	28	570	29	587	20	578	23	575	+4
Literary	**2011**	47	555	26	575	15	557	12	534	**-21**
	2016	41	567	28	589	17	573	14	552	**-15**
	2021	28	577	29	594	20	584	23	581	+4
Informational	**2011**	47	546	26	565	15	552	12	530	**-16**
	2016	41	561	28	582	17	566	14	547	**-14**
	2021	28	566	29	585	20	575	23	569	+3
Retrieve/Infer	**2011**	47	550	26	569	15	549	12	530	**-20**
	2016	41	562	28	583	17	570	14	548	**-14**
	2021	28	565	29	579	20	574	23	568	+3
Interpret/Evaluate	**2011**	47	549	26	568	15	559	12	535	**-15**
	2016	41	566	28	587	17	568	14	552	**-14**
	2021	28	576	29	592	20	581	23	580	+4

Source: Appendix Table A3.72.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. In 2011, the question was *How often do you borrow books from your school or local library?*, while in 2016 and 2021, it was *How often do you borrow books (including e-books) from your school or local library?*.

Use of digital devices to find and read information

Pupils were asked about the time they spent using digital devices to find and read information on a normal school day, with the response options being *more than 30 minutes*, *30 minutes or less*, and *no time*. Figure 3.22 shows the percentages and mean achievement of pupils belonging to each of these groups in Ireland in 2021. More than half of pupils reported that they spent *30 minutes or less* using digital devices to find and read information on a normal school day, 27% reported that they spent *no time*, and 16% that they spent *more than 30 minutes* on this activity. Pupils who reported spending *more than 30 minutes* achieved the lowest mean score (565), which was statistically significantly lower than the scores of their peers who reported spending *30 minutes or less* (580) or *no time* (582) using digital devices to find and read information on a normal school day.

Figure 3.22: Percentages and mean achievement of pupils in Ireland by time spent using digital devices to find and read information, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.73.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.39 shows the percentages and mean achievement of pupils by the time spent on using digital devices to find and read information on a normal school day, in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The time spent using digital devices to find and read information varied across countries as did the magnitude and direction of mean achievement differences between the *more than 30 minutes* and *no time* categories. While this mean difference was in favour of the *no time* category in Ireland (a statistically significant difference), differences across the reference countries, going up to 33 and 35 points in Singapore and Hong Kong, respectively, mostly favoured the *more than 30 minutes* category.

Table 3.39: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by time spent using digital devices to find and read information (2021)

		Overall mean	More than 30 minutes		30 minutes or less		No time		Mean difference between *more than 30 minutes* and *no time*
			%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	16	565	57	580	27	582	**+18**
	Northern Ireland	566	20	562	66	572	13	547	**-14**
	Croatia	557	25	545	64	566	12	536	-9
	Lithuania	552	24	547	63	559	13	536	-11
End G4	Australia ⋈	540	27	545	57	547	17	516	**-29**
	England ⋈	558	23	554	61	565	17	543	-11
	Hong Kong SAR	573	21	576	66	578	13	541	**-35**
	Poland	549	30	537	59	559	11	535	-2
	Finland	549	18	538	60	556	22	544	+6
	New Zealand	521	28	528	53	531	19	499	**-29**
	Singapore	587	28	594	57	592	15	561	**-33**
	PIRLS	503	25	502	52	512	23	486	**-16**

Source: Appendix Table A3.73.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Tables 3.40 and 3.41 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils by the time spent using digital devices to find and read information on a normal school day in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, the magnitude and direction of mean achievement differences between the *more than 30 minutes* and *no time* categories varied across countries, with differences in most reference countries favouring the *more than 30 minutes* category. In Ireland, the largest mean difference (20 points) between these two categories was on the Literary subscale, favouring the *no time* category, while mean differences across the other three subscales were similar to one another in magnitude.

Table 3.40: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by time spent using digital devices to find and read information (2021)

		Literary				Informational			
		More than 30 minutes	**30 minutes or less**	**No time**	**Mean difference between *more than 30 minutes* and *no time***	**More than 30 minutes**	**30 minutes or less**	**No time**	**Mean difference between *more than 30 minutes* and *no time***
Start G5	Ireland	569	586	589	**+20**	564	576	578	**+14**
	Northern Ireland	569	579	556	-13	557	568	543	-15
	Croatia	553	579	541	**-12**	543	561	533	-11
	Lithuania	548	558	539	-9	546	561	535	**-11**
End G4	Australia ⋈	549	550	517	**-32**	543	546	516	**-28**
	England ⋈	553	565	546	-7	555	566	544	-11
	Hong Kong SAR	565	570	533	**-32**	588	587	550	**-38**
	Poland	539	563	536	-3	536	558	534	-2
	Finland	533	555	540	+7	541	556	546	+5
	New Zealand	529	532	502	**-27**	527	530	497	**-30**
	Singapore	601	596	564	**-37**	592	592	560	**-33**
	PIRLS	503	513	486	**-16**	502	511	485	**-16**

Source: Appendix Tables A3.74 and A3.75.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

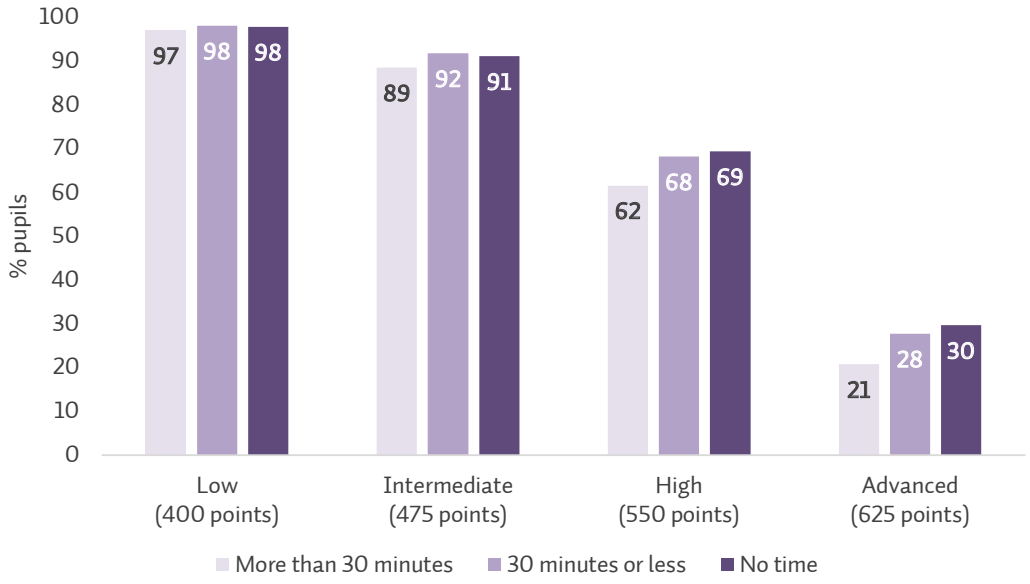
Table 3.41: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by time spent using digital devices to find and read information (2021)

		Retrieve/Infer				Interpret/Evaluate			
		More than 30 minutes	**30 minutes or less**	**No time**	**Mean difference between *more than 30 minutes* and *no time***	**More than 30 minutes**	**30 minutes or less**	**No time**	**Mean difference between *more than 30 minutes* and *no time***
Start G5	Ireland	561	573	576	**+16**	570	585	584	**+14**
	Northern Ireland	553	564	538	-15	569	579	557	-12
	Croatia	541	561	534	-7	552	570	538	**-14**
	Lithuania	548	562	540	-8	545	558	536	-9
End G4	Australia ⋈	538	541	509	**-30**	551	554	524	**-27**
	England ⋈	550	562	541	-10	557	569	544	**-12**
	Hong Kong SAR	582	583	544	**-38**	575	578	542	**-33**
	Poland	534	555	531	-3	541	563	536	-5
	Finland	539	557	544	+5	538	555	545	+6
	New Zealand	526	530	500	**-25**	530	532	495	**-35**
	Singapore	590	590	557	**-32**	599	596	565	**-34**
	PIRLS	502	511	486	**-16**	502	512	485	**-17**

Source: Appendix Tables A3.76 and A3.77.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the time spent using digital devices to find and read information on a normal school day are shown in Figure 3.23. Percentage differences between the *more than 30 minutes* and *no time* categories, favouring the latter, widened with every subsequent benchmark and were statistically significant at the High and Advanced Benchmarks. For example, while 97% of pupils who reported spending *more than 30 minutes* on using digital devices to find and read information on a normal school day reached the Low Benchmark as opposed to 98% who spent *no time* doing so, a difference of one percentage point, the equivalent difference at the Advanced Benchmark was nine percentage points (21% vs 30%).

Figure 3.23: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by time spent using digital devices to find and read information (2021)



Source: Appendix Table A3.78.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The question related to the time pupils spent using digital devices to find and read information was included in the 2016 (although with slightly different phrasing) but not in the 2011 pupil questionnaire. Notably, the percentage of pupils spending *more than 30 minutes* on the use of digital devices to find and read information on a normal school day increased by five percentage points between 2016 and 2021, and the percentage of pupils spending *no time* on this activity decreased by 10 percentage points between 2016 and 2021. Mean achievement differences between the *more than 30 minutes* and *no time* categories, favouring the latter, narrowed between 2016 and 2021 across both overall reading achievement and all subscales (Table 3.42).

Table 3.42: Percentages and mean reading achievement of pupils in Ireland, by time spent using digital devices to find and read information (2016, 2021)

		More than 30 minutes		30 minutes or less		No time		Mean difference between *more than 30 minutes* and *no time*
		%	Mean	%	Mean	%	Mean	
Overall	**2016**	11	547	52	570	37	570	**+23**
	2021	16	565	57	580	27	582	**+18**
Literary	**2016**	11	550	52	574	37	575	**+26**
	2021	16	569	57	586	27	589	**+20**
Informational	**2016**	11	546	52	568	37	567	**+21**
	2021	16	564	57	576	27	578	**+14**
Retrieve/Infer	**2016**	11	544	52	569	37	570	**+27**
	2021	16	561	57	573	27	576	**+16**
Interpret/Evaluate	**2016**	11	548	52	573	37	571	**+23**
	2021	16	570	57	585	27	584	**+14**

Source: Appendix Table A3.79.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. In 2016, the question was *How much time do you spend using a computer or tablet to do these activities for your schoolwork on a normal school day?*, while in 2021, it was *How much time do you spend using a computer, tablet, or smartphone to do these activities for your schoolwork on a normal school day?*.

Reading attitudes

Confident in reading

The extent to which pupils felt confident in reading was captured through six items in the pupil questionnaire: *I usually do well in reading*; *Reading is easy for me*; *I have trouble reading stories with difficult words* (reverse coded); *Reading is harder for me than for many of my classmates* (reverse coded); *Reading is harder for me than any other subject* (reverse coded); *I am just not good at reading* (reverse coded). Pupils were asked how much they agreed or disagreed with each of these six statements and their responses were used to create the PIRLS *Students Confident in Reading* scale, on the basis of which pupils were described as *very confident*, *somewhat confident*, or *not confident* in reading.

Table 3.43 shows the percentages and mean achievement of pupils in each category of the PIRLS *Students Confident in Reading* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, approximately half of pupils (49%) indicated that they were *very confident*, 34% *somewhat confident*, and 17% *not confident* in reading. *Very confident* pupils achieved a mean score of 609 points, which was statistically significantly higher than that of their *not confident* peers (516). This pattern observed in Ireland was also evident internationally, with score differences between *very confident* pupils and *not confident* pupils ranging from 66 points in Hong Kong to 111 in New Zealand.

Table 3.43: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they were confident in reading (2021)

		Overall mean	Very confident		Somewhat confident		Not confident		Mean difference between *very confident* and *not confident*
			%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	49	609	34	564	17	516	**-93**
	Northern Ireland	566	47	603	37	550	16	501	**-102**
	Croatia	557	46	583	38	552	16	503	**-80**
	Lithuania	552	38	590	38	552	25	503	**-87**
End G4	Australia ⋈	540	43	582	38	529	19	477	**-104**
	England ⋈	558	45	594	34	544	21	504	**-90**
	Hong Kong SAR	573	32	605	39	573	29	539	**-66**
	Poland	549	55	572	34	539	11	482	**-90**
	Finland	549	57	574	30	534	13	488	**-86**
	New Zealand	521	34	577	38	527	28	466	**-111**
	Singapore	587	51	622	33	574	16	514	**-107**
	PIRLS	503	43	541	35	498	22	449	**-91**

Source: Appendix Table A3.80.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Tables 3.44 and 3.45 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the PIRLS *Students Confident in Reading* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils who indicated that they were *very confident* in reading tended to achieve statistically significantly higher scores across all four subscales compared to their *not confident* peers. In Ireland, the smallest mean difference between *very confident* and *not confident* pupils was on the Retrieve/Infer subscale – although this difference was still substantial and statistically significant. Mean differences across the other three subscales were similar to one another in magnitude.

Table 3.44: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they were confident in reading (2021)

		Literary				Informational			
		Very confident	**Somewhat confident**	**Not confident**	**Mean difference between *very confident* and *not confident***	**Very confident**	**Somewhat confident**	**Not confident**	**Mean difference between *very confident* and *not confident***
Start G5	Ireland	615	572	520	**-95**	605	560	511	**-95**
	Northern Ireland	609	558	509	**-100**	600	545	498	**-102**
	Croatia	594	562	513	**-81**	580	547	498	**-82**
	Lithuania	587	553	506	**-81**	591	553	502	**-90**
End G4	Australia ⋈	586	531	479	**-107**	582	527	475	**-107**
	England ⋈	592	546	508	**-84**	598	545	503	**-95**
	Hong Kong SAR	595	566	531	**-64**	616	583	546	**-70**
	Poland	574	542	487	**-87**	572	537	479	**-93**
	Finland	572	532	486	**-86**	576	535	487	**-89**
	New Zealand	579	529	467	**-111**	577	526	465	**-112**
	Singapore	627	579	516	**-110**	621	572	514	**-107**
	PIRLS	542	499	449	**-93**	540	497	448	**-92**

Source: Appendix Tables A3.81 and Tables A3.82.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

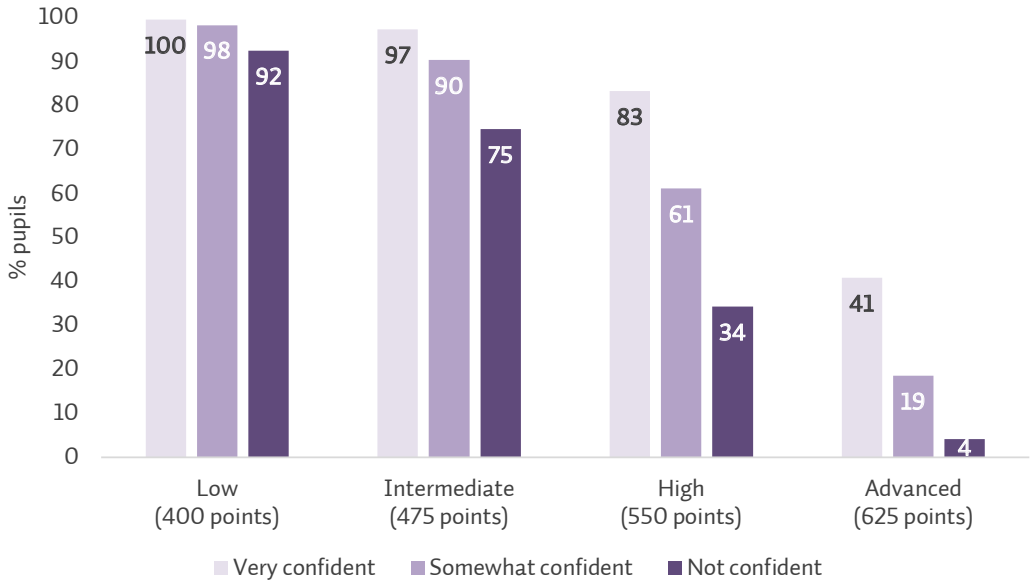
Table 3.45: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they were confident in reading (2021)

		Retrieve/Infer				Interpret/Evaluate			
		Very confident	**Somewhat confident**	**Not confident**	**Mean difference between *very confident* and *not confident***	**Very confident**	**Somewhat confident**	**Not confident**	**Mean difference between *very confident* and *not confident***
Start G5	Ireland	600	561	511	**-89**	613	569	520	**-94**
	Northern Ireland	594	543	494	**-101**	610	557	514	**-96**
	Croatia	579	546	499	**-80**	587	556	509	**-78**
	Lithuania	591	555	505	**-86**	589	551	501	**-88**
End G4	Australia ⋈	575	522	470	**-105**	589	536	484	**-105**
	England ⋈	591	541	501	**-90**	597	548	510	**-87**
	Hong Kong SAR	614	577	539	**-74**	603	573	539	**-64**
	Poland	568	535	481	**-87**	575	543	486	**-90**
	Finland	575	535	485	**-91**	573	534	489	**-84**
	New Zealand	574	527	468	**-106**	582	528	463	**-119**
	Singapore	617	571	512	**-105**	626	577	517	**-109**
	PIRLS	540	498	449	**-91**	541	498	449	**-92**

Source: Appendix Tables A3.83 and Tables A3.84.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the extent to which they were confident in reading are shown in Figure 3.24. Although percentage differences between the *very confident* and *not confident* categories were statistically significant across all benchmarks, with the former tending to have an advantage compared to the latter, these differences widened with subsequent benchmarks. For example, while 100% of *very confident* pupils reached the Low Benchmark as opposed to 92% of *not confident* pupils, a difference of eight percentage points, the equivalent difference at the Advanced Benchmark was 37 percentage points (41% vs 4%).

Figure 3.24: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the extent to which they were confident in reading (2021)



Source: Appendix Table A3.85.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included a *Students Confident in Reading* scale; however, the 2011 scale was slightly different to the corresponding 2016 and 2021 scales.[21] This means that comparisons are only possible between the 2016 and 2021 data (additional information about the scale components across cycles can be found in Appendix Table A3.87). The proportion of *very confident* pupils decreased between 2016 and 2021, going from 55% to 49%, while the proportion of *not confident* pupils slightly increased, going from 14% to 17%. Mean achievement differences between *very confident* and *not confident* pupils widened between 2016 and 2021 across both overall reading achievement and most of the subscales. The Retrieve/Infer subscale was an exception to this pattern, with the mean difference remaining stable between 2016 and 2021 (Table 3.46).

21 In 2011, the scale included two items that were not included in the 2016 and 2021 scales: *If a book is interesting, I don't care how hard it is to read* and *My teacher tells me I am a good reader*. In turn, the 2016 and 2021 scales included one item, *I am just not good at reading*, that was not included in the 2011 scale. Also, the highest category of the scale was titled *confident* in 2011 (Martin et al., 2017; Martin & Mullis, 2012).

Table 3.46: Percentages and mean reading achievement of pupils in Ireland, by the extent to which they were confident in reading (2016, 2021)

		Very confident		Somewhat confident		Not confident		Mean difference between *very confident* and *not confident*
		%	Mean	%	Mean	%	Mean	
Overall	**2016**	55	593	31	550	14	505	**-88**
	2021	49	609	34	564	17	516	**-93**
Literary	**2016**	55	597	31	556	14	510	**-86**
	2021	49	615	34	572	17	520	**-95**
Informational	**2016**	55	592	31	547	14	502	**-90**
	2021	49	605	34	560	17	511	**-95**
Retrieve/Infer	**2016**	55	593	31	550	14	504	**-89**
	2021	49	600	34	561	17	511	**-89**
Interpret/Evaluate	**2016**	55	595	31	553	14	509	**-87**
	2021	49	613	34	569	17	520	**-94**

Source: Appendix Table A3.86.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. In 2011, the scale components and index category labels differed slightly from those used in 2016 and 2021.

Liking reading

The extent to which pupils liked reading was captured through 10 items in the pupil questionnaire: *I like talking about what I read with other people*; *I would be happy if someone gave me a book as a present*; *I think reading is boring* (reverse coded); *I would like to have more time for reading*; *I enjoy reading*; *I learn a lot from reading*; *I like to read things that make me think*; *I like it when a book helps me imagine other worlds*; *I read for fun*; *I read to find out about things I want to learn*. Pupils were asked how much they agreed or disagreed with the first eight statements and how often they did the last two reading activities outside of school (with response options ranging from *every day or almost every day* to *never or almost never*). Their responses were used to create the PIRLS *Students Like Reading* scale, on the basis of which pupils were grouped into three categories: *very much like reading*, *somewhat like reading*, or *do not like reading*.

Table 3.47 shows the percentages and mean achievement of pupils in each category of the PIRLS *Students Like Reading* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. In Ireland, approximately one-third of pupils (31%) indicated that they *very much like reading*, 45% that they *somewhat like reading*, and 23% that they *do not like reading*. Pupils who *very much like reading* achieved a mean score of 593 points, which was statistically significantly higher than that of their peers who *do not like reading* (556). This pattern observed in Ireland was also evident in most of the reference countries, with score differences between pupils who *very much like reading* and those who *do not like reading* ranging from 19 points in Poland to 46 in Singapore. Croatia and Lithuania were exceptions to this pattern, whereby score differences between the two groups of pupils were small and not statistically significant.

Table 3.47: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they liked reading (2021)

		Overall mean	Very much like reading		Somewhat like reading		Do not like reading		Mean difference between *very much like reading* and *do not like reading*
			%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	31	593	45	578	23	556	**-37**
	Northern Ireland	566	28	585	47	570	25	542	**-43**
	Croatia	557	23	560	52	557	25	554	-5
	Lithuania	552	22	555	48	555	30	548	-7
End G4	Australia ⋈	540	29	562	45	542	26	517	**-45**
	England ⋈	558	29	570	48	562	24	536	**-34**
	Hong Kong SAR	573	30	590	47	573	23	550	**-40**
	Poland	549	23	555	49	556	28	536	**-19**
	Finland	549	23	563	46	555	30	533	**-30**
	New Zealand	521	38	532	44	521	18	511	**-21**
	Singapore	587	33	607	47	586	20	560	**-46**
	PIRLS	503	42	513	40	501	18	486	**-27**

Source: Appendix Table A3.88.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Tables 3.48 and 3.49 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the PIRLS *Students Like Reading* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils who indicated that they *very much like reading* tended to achieve statistically significantly higher scores across all four subscales compared to their peers who indicated that they *do not like reading*, in Ireland and most of the reference countries. In Ireland, slightly smaller mean differences were noted on the process subscales (Retrieve/Infer and Interpret/Evaluate) compared to the purpose subscales (Literary and Informational) – however, all differences were substantial and statistically significant.

Table 3.48: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they liked reading (2021)

		Literary				Informational			
		Very much like reading	**Somewhat like reading**	**Do not like reading**	**Mean difference between *very much like reading* and *do not like reading***	**Very much like reading**	**Somewhat like reading**	**Do not like reading**	**Mean difference between *very much like reading* and *do not like reading***
Start G5	Ireland	601	585	561	**-41**	589	576	551	**-39**
	Northern Ireland	591	577	549	**-42**	582	564	539	**-43**
	Croatia	570	568	566	-3	557	553	550	-6
	Lithuania	551	556	550	-2	557	556	547	-10
End G4	Australia ⋈	566	546	519	**-47**	560	541	517	**-43**
	England ⋈	572	562	535	**-36**	572	563	539	**-33**
	Hong Kong SAR	582	565	541	**-41**	598	583	562	**-36**
	Poland	557	560	538	**-19**	553	555	536	**-17**
	Finland	560	553	530	**-30**	563	556	534	**-29**
	New Zealand	534	523	510	**-24**	531	520	510	**-21**
	Singapore	611	590	563	**-48**	606	585	559	**-48**
	PIRLS	514	502	487	**-27**	513	500	485	**-28**

Source: Appendix Tables A3.89 and A3.90.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

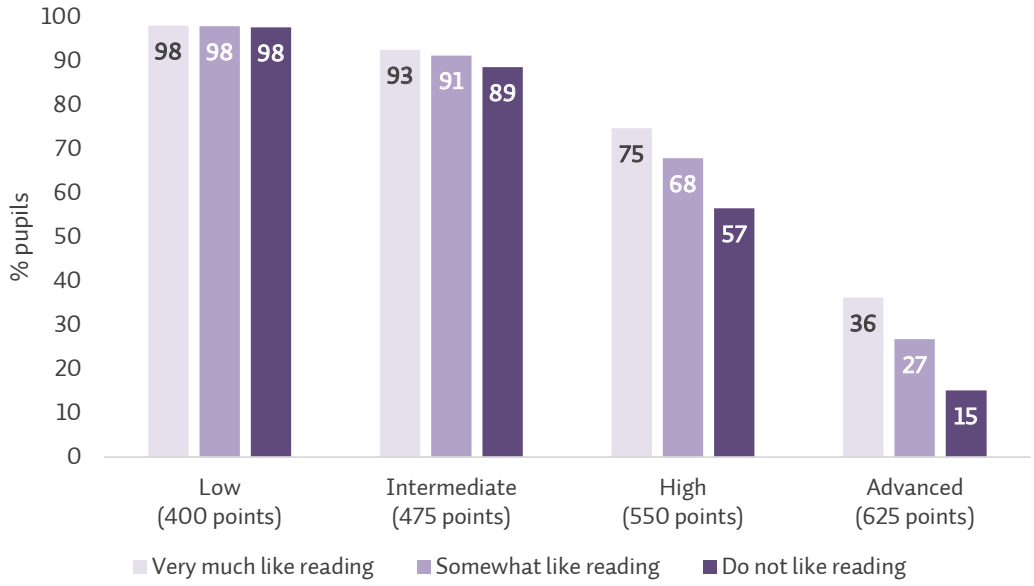
Table 3.49: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they liked reading (2021)

		Retrieve/Infer				Interpret/Evaluate			
		Very much like reading	**Somewhat like reading**	**Do not like reading**	**Mean difference between *very much like reading* and *do not like reading***	**Very much like reading**	**Somewhat like reading**	**Do not like reading**	**Mean difference between *very much like reading* and *do not like reading***
Start G5	Ireland	586	573	550	**-36**	596	584	560	**-37**
	Northern Ireland	577	561	534	**-43**	591	576	552	**-39**
	Croatia	555	553	550	-5	566	561	559	-7
	Lithuania	557	557	550	-7	555	554	547	-8
End G4	Australia ⋈	555	536	510	**-45**	567	549	525	**-42**
	England ⋈	569	558	532	**-37**	573	565	541	**-32**
	Hong Kong SAR	596	578	552	**-44**	588	573	552	**-37**
	Poland	549	553	534	**-15**	561	559	538	**-23**
	Finland	563	555	534	**-29**	562	554	533	**-29**
	New Zealand	529	521	512	**-17**	534	522	508	**-26**
	Singapore	603	583	555	**-48**	610	589	565	**-45**
	PIRLS	513	501	485	**-27**	513	501	486	**-27**

Source: Appendix Tables A3.91 and A3.92.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the extent to which they liked reading are shown in Figure 3.25. Although percentage differences between the *very much like reading* and *do not like reading* categories were statistically significant across all benchmarks except for the Low Benchmark, with the former group tending to have an advantage compared to the latter, these differences widened with every subsequent benchmark. For example, while 93% of pupils who *very much like reading* reached the Intermediate Benchmark as opposed to 89% of pupils who *do not like reading*, a difference of four percentage points, the equivalent difference at the Advanced Benchmark was 21 percentage points (36% vs 15%).

Figure 3.25: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the extent to which they liked reading (2021)



Source: Appendix Table A3.93.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included a *Students Like Reading* scale; however, the 2011 scale was different to the corresponding 2016 and 2021 scales.[22] This means that comparisons are only possible between the 2016 and 2021 data (additional information about the scale components across cycles can be found in Appendix Table A3.95). The proportion of pupils who *very much like reading* decreased substantially between 2016 and 2021, going from 46% to 31%, while the proportion of those who *do not like reading* increased, going from 15% to 23%. Mean achievement differences between pupils who *very much like reading* and those who *do not like reading* narrowed between 2016 and 2021 across both overall reading achievement and all subscales (Table 3.50).

22 In 2011, the scale included two items that were not included in the 2016 and 2021 scales: *I read only if I have to* and *I read things that I choose myself*. In turn, the 2016 and 2021 scales included four items, *I learn a lot from reading*; *I like to read things that make me think*; *I like it when a book helps me imagine other worlds*; and *I read to find out about things I want to learn,* that were not included in the 2011 scale. Also, the highest category of the scale was titled *like reading* in 2011 (Martin et al., 2017; Martin & Mullis, 2012).

Table 3.50: Percentages and mean reading achievement of pupils in Ireland, by the extent to which they liked reading (2016, 2021)

		Very much like reading		Somewhat like reading		Do not like reading		Mean difference between *very much like reading* and *do not like reading*
		%	Mean	%	Mean	%	Mean	
Overall	**2016**	46	580	40	565	15	534	**-46**
	2021	31	593	45	578	23	556	**-37**
Literary	**2016**	46	586	40	569	15	537	**-48**
	2021	31	601	45	585	23	561	**-41**
Informational	**2016**	46	578	40	563	15	533	**-45**
	2021	31	589	45	576	23	551	**-39**
Retrieve/Infer	**2016**	46	580	40	564	15	533	**-47**
	2021	31	586	45	573	23	550	**-36**
Interpret/Evaluate	**2016**	46	582	40	568	15	536	**-46**
	2021	31	596	45	584	23	560	**-37**

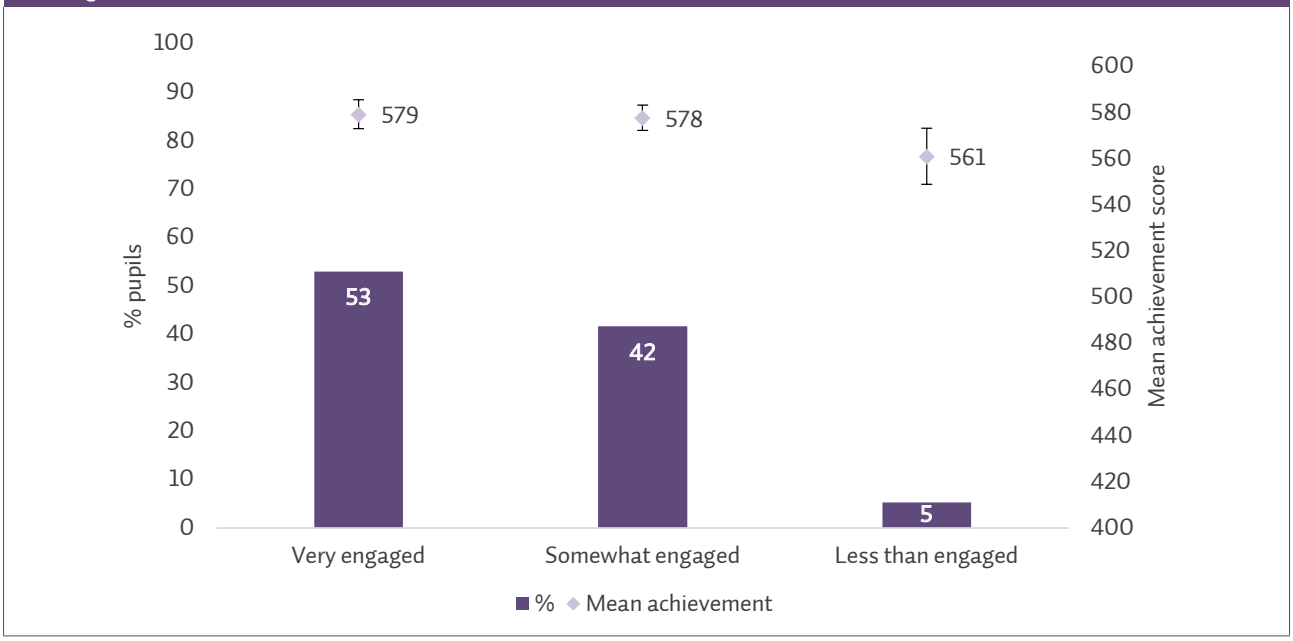
Source: Appendix Table A3.94.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. In 2011, the scale components and index category labels differed slightly from those used in 2016 and 2021.

Engaged in reading lessons

The extent to which pupils were engaged in reading lessons was captured through nine items in the pupil questionnaire: *I like what I read about in school*; *My teacher gives me interesting things to read*; *I know what my teacher expects me to do*; *My teacher is easy to understand*; *I am interested in what my teacher says*; *My teacher encourages me to say what I think about what I have read*; *My teacher lets me show what I have learned*; *My teacher does a variety of things to help us learn*; *My teacher tells me how to do better when I make a mistake*. Pupils were asked how much they agreed or disagreed with each of these nine statements and their responses were used to create the PIRLS *Students Engaged in Reading Lessons* scale, on the basis of which pupils were described as *very engaged*, *somewhat engaged*, or *less than engaged* in reading lessons.

Figure 3.26 shows the percentages and mean achievement of pupils in each category of the PIRLS *Students Engaged in Reading Lessons* scale in Ireland in 2021. More than half of pupils (53%) indicated that they were *very engaged*, 42% that they were *somewhat engaged*, and 5% that they were *less than engaged* in reading lessons. *Very engaged* pupils achieved a mean score of 579 points, virtually identical to that of their *somewhat engaged* peers but statistically significantly higher than that of their *less than engaged* peers (561).

Figure 3.26: Percentages and mean achievement of pupils in Ireland by the extent to which they were engaged in reading lessons, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.96.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.51 shows the percentages and mean achievement of pupils in each category of the PIRLS *Students Engaged in Reading Lessons* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The pattern observed in Ireland was also evident internationally, with score differences between *very engaged* and *less than engaged* pupils ranging from seven points in Poland to 38 in Northern Ireland. Overall, the difference noted in Ireland was smaller in magnitude than the differences in most of the reference countries. Poland was an exception to this pattern, with the score difference between the two groups of pupils being small and not statistically significant.

Table 3.51: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they were engaged in reading lessons (2021)

		Overall mean	Very engaged		Somewhat engaged		Less than engaged		Mean difference between *very engaged* and *less than engaged*
			%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	53	579	42	578	5	561	**-18**
	Northern Ireland	566	59	572	37	561	4	534	**-38**
	Croatia	557	41	562	53	555	5	538	**-24**
	Lithuania	552	42	556	50	553	8	537	**-19**
End G4	Australia ⋈	540	52	547	42	539	7	512	**-35**
	England ⋈	558	54	562	41	556	5	528	**-35**
	Hong Kong SAR	573	39	581	50	572	11	550	**-30**
	Poland	549	46	548	47	554	7	541	-7
	Finland	549	46	554	47	549	7	529	**-24**
	New Zealand	521	52	526	42	524	6	499	**-27**
	Singapore	587	48	593	45	585	7	558	**-36**
	PIRLS	503	61	510	34	495	5	465	**-45**

Source: Appendix Table A3.96.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

Tables 3.52 and 3.53 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the PIRLS *Students Engaged in Reading Lessons* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, *very engaged* pupils tended to achieve statistically significantly higher scores across all four subscales compared to their *less than engaged* peers across the reference countries, with Ireland's differences being among the smallest. In Ireland, slightly smaller mean achievement differences between *very engaged* and *less than engaged* pupils were noted on the Informational and Interpret/Evaluate subscales – although these differences were still statistically significant.

Table 3.52: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they were engaged in reading lessons (2021)

		Literary				Informational			
		Very engaged	**Somewhat engaged**	**Less than engaged**	**Mean difference between *very engaged* and *less than engaged***	**Very engaged**	**Somewhat engaged**	**Less than engaged**	**Mean difference between *very engaged* and *less than engaged***
Start G5	Ireland	586	584	565	**-21**	575	575	558	**-17**
	Northern Ireland	579	569	542	**-37**	567	558	536	**-30**
	Croatia	571	567	548	**-23**	560	550	531	**-28**
	Lithuania	554	555	538	**-16**	558	553	536	**-22**
End G4	Australia ⋈	551	542	514	**-37**	545	539	509	**-36**
	England ⋈	564	556	525	**-39**	563	558	532	**-31**
	Hong Kong SAR	573	564	537	**-36**	589	582	563	**-26**
	Poland	551	556	545	-6	546	554	537	-9
	Finland	552	547	525	**-26**	555	550	531	**-24**
	New Zealand	528	526	500	**-28**	526	522	499	**-27**
	Singapore	597	590	565	**-33**	593	584	555	**-38**
	PIRLS	511	496	466	**-46**	510	494	464	**-46**

Source: Appendix Tables A3.97 and A3.98.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

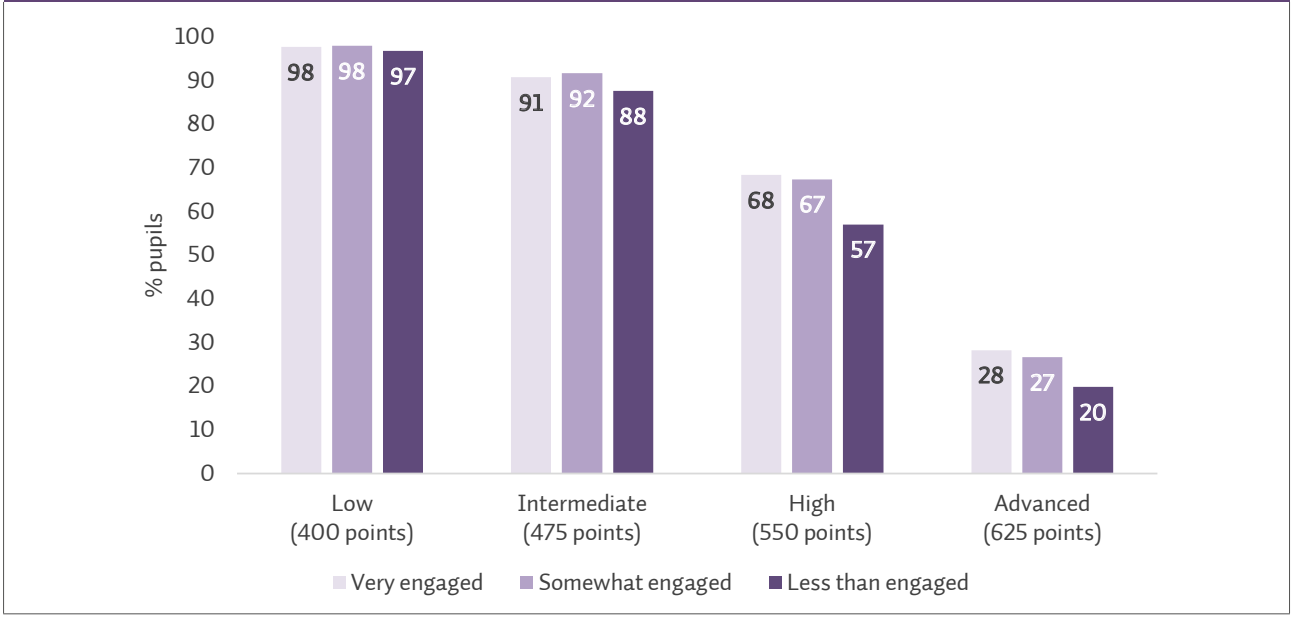
Table 3.53: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the extent to which they were engaged in reading lessons (2021)

		Retrieve/Infer				Interpret/Evaluate			
		Very engaged	**Somewhat engaged**	**Less than engaged**	**Mean difference between *very engaged* and *less than engaged***	**Very engaged**	**Somewhat engaged**	**Less than engaged**	**Mean difference between *very engaged* and *less than engaged***
Start G5	Ireland	573	573	551	**-23**	584	582	567	**-18**
	Northern Ireland	564	553	528	**-36**	579	570	544	**-35**
	Croatia	557	551	531	**-26**	567	559	541	**-26**
	Lithuania	558	555	539	**-19**	556	551	535	**-20**
End G4	Australia ⋈	541	532	505	**-37**	553	547	519	**-34**
	England ⋈	560	552	526	**-34**	566	561	527	**-38**
	Hong Kong SAR	587	576	552	**-35**	580	572	551	**-29**
	Poland	544	550	538	-6	552	557	544	-8
	Finland	555	549	531	**-23**	553	549	529	**-24**
	New Zealand	525	524	499	**-26**	529	523	497	**-32**
	Singapore	590	582	554	**-36**	597	589	562	**-36**
	PIRLS	510	494	465	**-44**	510	494	465	**-46**

Source: Appendix Tables A3.99 and A3.100.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the extent to which they were engaged in reading lessons are shown in Figure 3.27. Percentage differences between the *very engaged* and *less than engaged* categories ranged between one and 11 percentage points but were only statistically significant at the High and Advanced Benchmarks, with the former group tending to have an advantage compared to the latter. Percentage differences between the *very engaged* and *somewhat engaged* categories were negligible across all benchmarks.

Figure 3.27: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the extent to which they were engaged in reading lessons (2021)



Source: Appendix Table A3.101.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included a *Students Engaged in Reading Lessons* scale; however, the 2011 scale was slightly different to the corresponding 2016 and 2021 scales.[23] This means that comparisons are only possible between the 2016 and 2021 data (additional information about the scale components across cycles can be found in Appendix Table A3.103). The proportion of *very engaged* pupils decreased between 2016 and 2021, going from 62% to 53%, while the proportion of *less than engaged* pupils remained stable (4% and 5%, respectively). Mean achievement differences between *very engaged* and *less than engaged* pupils widened slightly between 2016 and 2021 across overall reading achievement and the Literary and Retrieve/Infer subscales. Mean differences remained effectively stable on the Informational and Interpret/Evaluate subscales (Table 3.54).

23 In 2011, the scale included two items that were not included in the 2016 and 2021 scales: *I think of things not related to the lesson* and *My teacher gives me interesting things to do*. In turn, the 2016 and 2021 scales included four items, *My teacher encourages me to say what I think about what I have read*; *My teacher lets me show what I have learned*; *My teacher does a variety of things to help us learn*; *My teacher tells me how to do better when I make a mistake*, that were not included in the 2011 scale. Also, the highest category of the scale was titled *engaged* and the lowest category was titled *not engaged* in 2011 (Martin et al., 2017; Martin & Mullis, 2012).

Table 3.54: Percentages and mean reading achievement of pupils in Ireland, by the extent to which they were engaged in reading lessons (2016, 2021)

		Very engaged		Somewhat engaged		Less than engaged		Mean difference between *very engaged* and *less than engaged*
		%	Mean	%	Mean	%	Mean	
Overall	**2016**	62	569	34	566	4	553	-16
	2021	53	579	42	578	5	561	**-18**
Literary	**2016**	62	574	34	571	4	558	-16
	2021	53	586	42	584	5	565	**-21**
Informational	**2016**	62	566	34	566	4	550	-16
	2021	53	575	42	575	5	558	**-17**
Retrieve/Infer	**2016**	62	569	34	565	4	550	**-19**
	2021	53	573	42	573	5	551	**-23**
Interpret/Evaluate	**2016**	62	571	34	570	4	553	-18
	2021	53	584	42	582	5	567	**-18**

Source: Appendix Table A3.102.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. In 2011, the scale components and index category labels differed slightly from those used in 2016 and 2021.

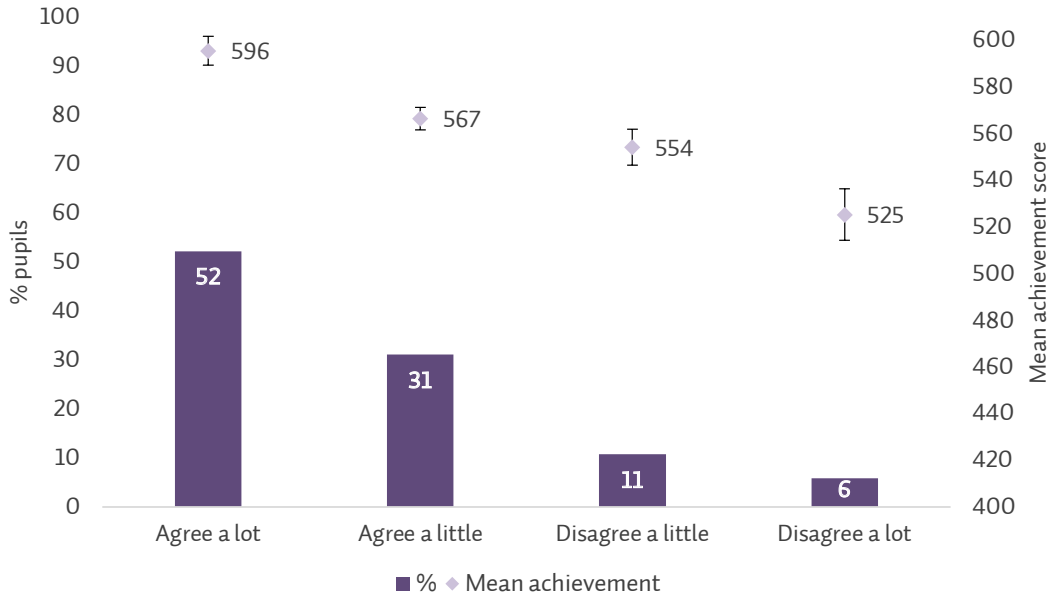
Digital attitudes

Attitudes towards reading in different modes

As a national addition in PIRLS 2021, pupils in Ireland were asked to indicate their agreement about the extent to which they enjoyed reading on paper and on a screen and found it easy to remember things they read on paper and on a screen.

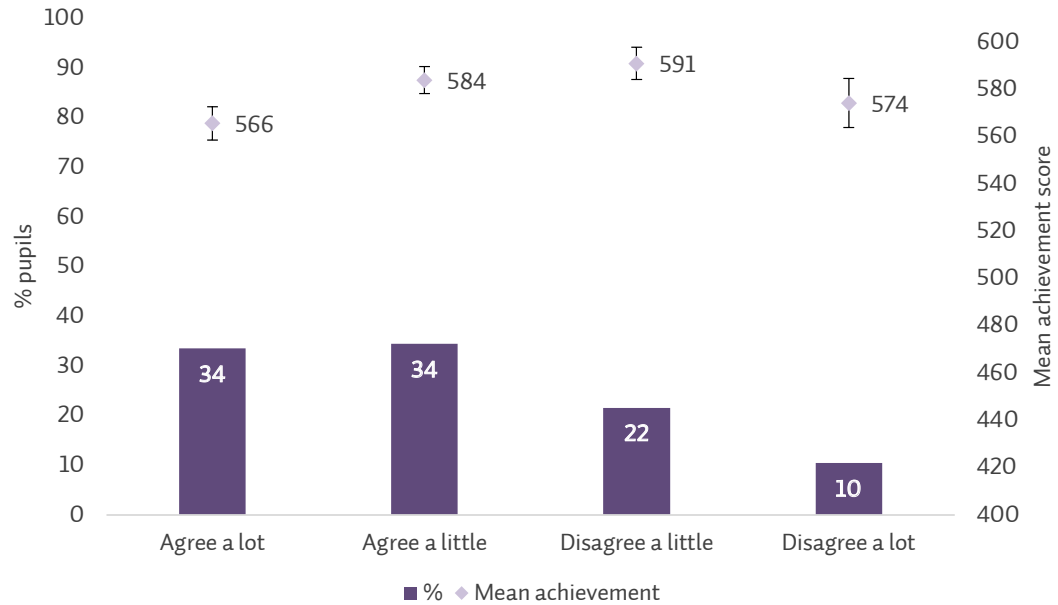
Figures 3.28-3.31 show the percentages and mean achievement of pupils in each category of these four variables in Ireland in 2021. Overall, pupils enjoyed reading on paper more than reading on a screen, with 83% and 68%, respectively, agreeing a lot or a little with these statements. Similarly, when pupils were asked about the extent to which they found it easy to remember things they read on paper and on a screen, more pupils reported finding it easy to remember things they read on paper (76%) than on a screen (66%). Higher levels of enjoyment of reading on paper and finding it easy to remember things read on paper were associated with statistically significantly higher scores, while patterns were less clear-cut when it came to enjoying reading on a screen or finding it easy to remember things read on a screen.

Figure 3.28: Percentages and mean achievement of pupils in Ireland by the extent to which they enjoyed reading on paper, with confidence intervals around estimates of achievement (2021)



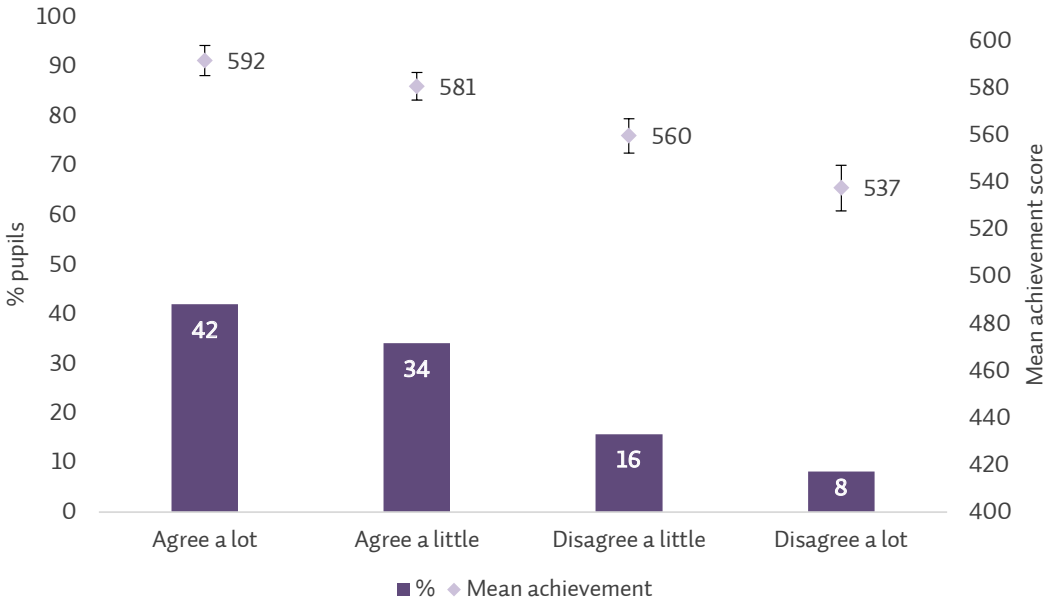
Source: Appendix Table A3.104.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 3.29: Percentages and mean achievement of pupils in Ireland by the extent to which they enjoyed reading on a screen, with confidence intervals around estimates of achievement (2021)



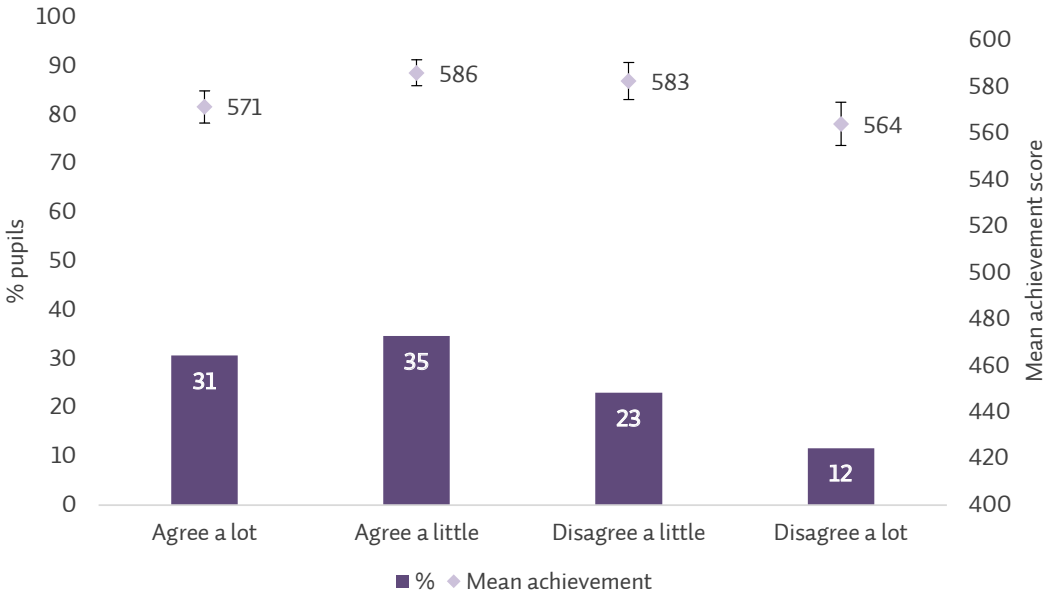
Source: Appendix Table A3.105.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 3.30: Percentages and mean achievement of pupils in Ireland by the extent to which they found it easy to remember things they read on paper, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.106.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 3.31: Percentages and mean achievement of pupils in Ireland by the extent to which they found it easy to remember things they read on a screen, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.107.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.55 shows the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the four variables related to attitudes towards reading in different modes in Ireland in 2021. Reflecting the patterns noted for overall reading achievement, pupils who indicated that they enjoyed reading on paper or found it easy to remember things they read on paper tended to achieve statistically significantly higher scores across all four subscales compared to their peers who indicated that they did not enjoy reading on paper or did not find it easy to remember things they read on paper. Mean achievement

differences across the subscales were similar to one another in magnitude. Again, reflecting the patterns noted for overall reading achievement, no statistically significant differences were noted in any of the subscales between pupils who enjoyed reading on a screen or found it easy to remember things read on a screen and their peers who did not.

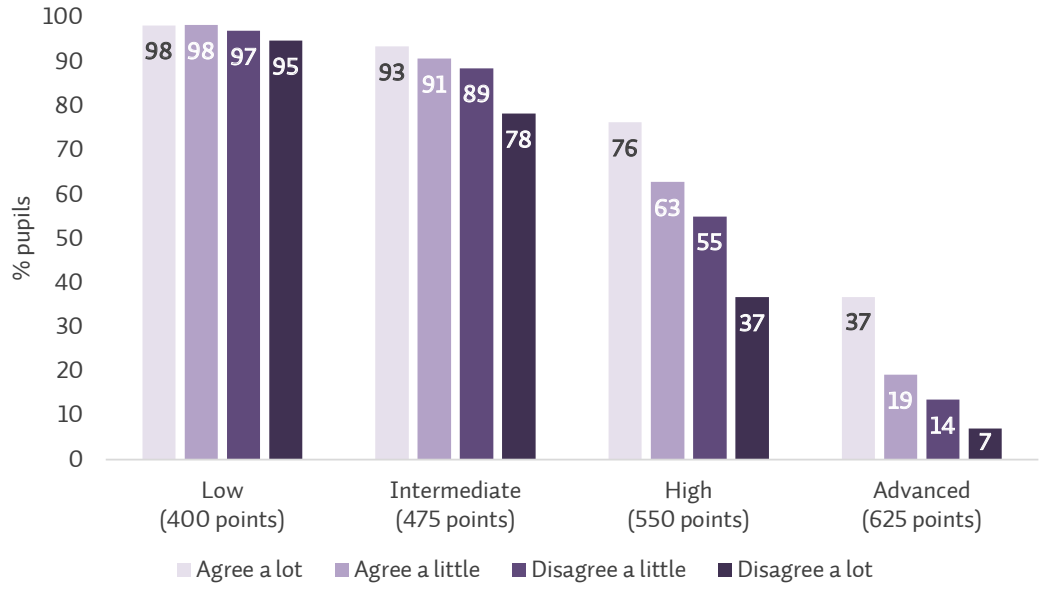
Table 3.55: Mean achievement on reading **purpose** and **process** subscales of pupils in Ireland, by the extent to which they enjoyed reading on paper or on a screen and the extent to which they found it easy to remember things they read on paper or on a screen (2021)

		Agree a lot	Agree a little	Disagree a little	Disagree a lot	Mean difference between *agree a lot* and *disagree a lot*
I enjoy reading on paper	**Literary**	602	573	561	530	**-72**
	Informational	593	562	549	521	**-72**
	Retrieve/Infer	589	561	549	520	**-69**
	Interpret/Evaluate	600	571	558	529	**-72**
I enjoy reading on a screen	**Literary**	572	590	598	580	+8
	Informational	562	580	587	570	+8
	Retrieve/Infer	559	578	584	568	+9
	Interpret/Evaluate	571	588	594	578	+7
I find it easy to remember things I read on paper	**Literary**	598	587	566	541	**-58**
	Informational	588	577	556	533	**-56**
	Retrieve/Infer	586	574	553	533	**-52**
	Interpret/Evaluate	597	585	564	542	**-54**
I find it easy to remember things I read on a screen	**Literary**	577	593	589	570	-7
	Informational	567	583	579	559	-8
	Retrieve/Infer	564	580	577	559	-5
	Interpret/Evaluate	577	590	587	568	-9

Source: Appendix Tables A3.104, A3.105, A3.106, and A3.107.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

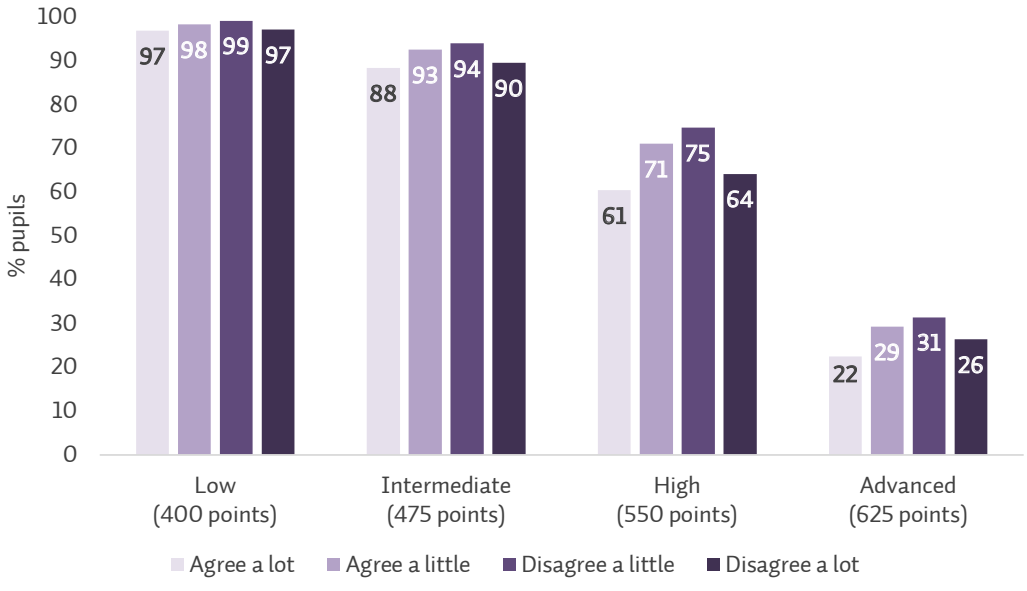
The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the extent to which they enjoyed reading on paper and on a screen and found it easy to remember things they read on paper and on a screen are shown in Figures 3.32-3.35. Percentage differences between the *agree a lot* and *disagree a lot* categories in the *I enjoy reading on paper* and *I find it easy to remember things I read on paper* questions were statistically significant across all benchmarks except for the Low Benchmark, with the former group of pupils tending to have an advantage compared to the latter. However, these differences widened with subsequent benchmarks. For example, as seen in Figure 3.32, while 93% of pupils who agreed a lot that they enjoy reading on paper reached the Intermediate Benchmark as opposed to 78% of pupils who disagreed a lot, a difference of 15 percentage points, the equivalent difference at the Advanced Benchmark was 30 percentage points (37% vs 7%). Regarding pupils' levels of enjoyment of reading on a screen and the extent to which they found it easy to remember things they read on a screen, clear-cut patterns were not detected, with percentage differences between the different categories mostly not being statistically significant.

Figure 3.32: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the extent to which they enjoyed reading on paper (2021)



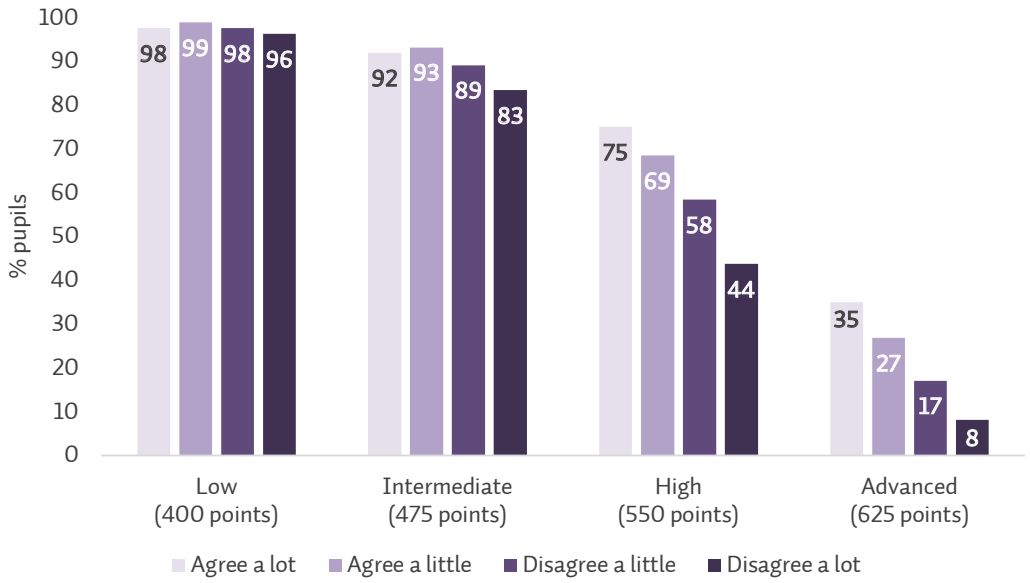
Source: Appendix Table A3.108.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 3.33: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the extent to which they enjoyed reading on a screen (2021)



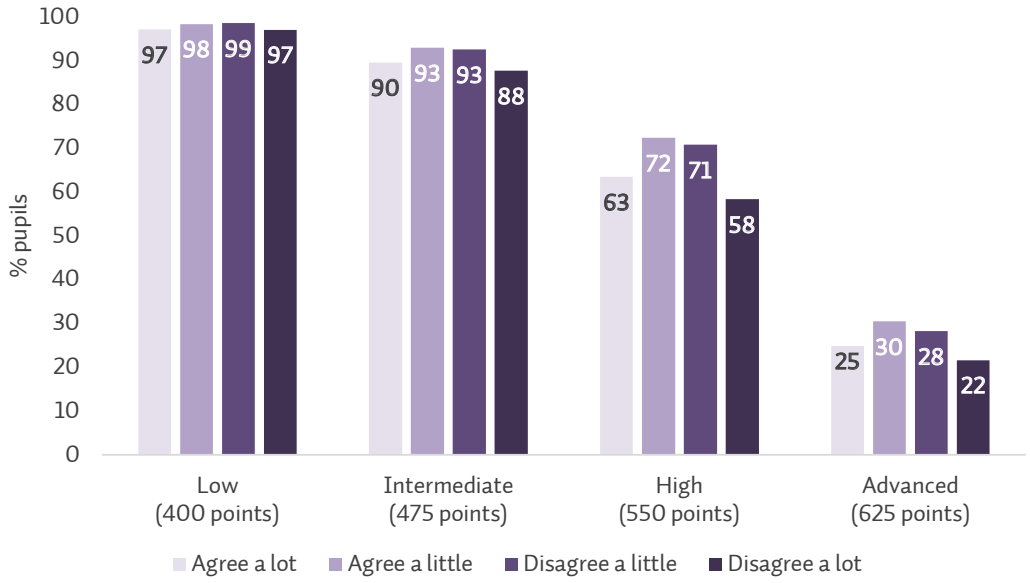
Source: Appendix Table A3.109.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 3.34: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the extent to which they found it easy to remember things they read on paper (2021)



Source: Appendix Table A3.110.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 3.35: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the extent to which they found it easy to remember things they read on a screen (2021)



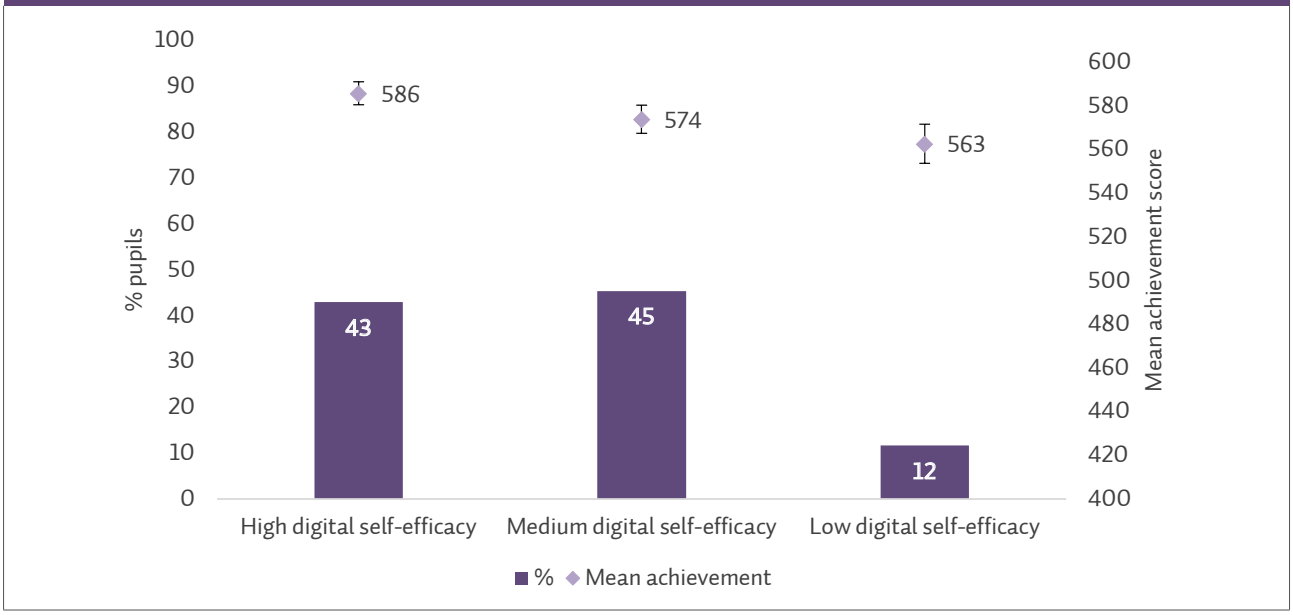
Source: Appendix Table A3.111.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Digital self-efficacy

Pupils' perceived self-efficacy in using digital devices was captured through eight items in the pupil questionnaire: *I am good at using a computer or tablet*; *I am good at typing*; *It is easy for me to find information on the internet*; *I know how to create written stories or reports*; *I know how to create presentations*; *I can recognise a website that is useful to me*; *I can tell if a website is trustworthy*; *I know how to make and share a video*. Pupils were asked how much they agreed or disagreed with each of these eight statements and their responses were used to create the PIRLS *Digital Self-Efficacy* scale, on the basis of which pupils were grouped into three categories: *high digital self-efficacy*, *medium digital self-efficacy*, or *low digital self-efficacy*.

Figure 3.36 shows the percentages and mean achievement of pupils in each category of the PIRLS *Digital Self-Efficacy* scale in Ireland in 2021. Approximately four out of 10 pupils (43%) indicated that they had *high digital self-efficacy*, 45% that they had *medium digital self-efficacy*, and 12% that they had *low digital self-efficacy*. Pupils with *high digital self-efficacy* achieved a mean score of 586 points, which was statistically significantly higher than those of their peers with *medium* (574) and *low digital self-efficacy* (563).

Figure 3.36: Percentages and mean achievement of pupils in Ireland by digital self-efficacy, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.112.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.56 shows the percentages and mean achievement of pupils in each category of the PIRLS *Digital Self-Efficacy* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The pattern observed in Ireland was also evident internationally, and was mostly more pronounced, with score differences between pupils with *high digital self-efficacy* and those with *low digital self-efficacy* ranging from 23 points in Ireland to 70 in Australia. Overall, Ireland's difference was the smallest in magnitude among the reference countries.

Table 3.56: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by digital self-efficacy (2021)

		Overall mean	High digital self-efficacy		Medium digital self-efficacy		Low digital self-efficacy		Mean difference between *high* and *low digital self-efficacy*
			%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	43	586	45	574	12	563	**-23**
	Northern Ireland	566	51	580	40	558	8	529	**-51**
	Croatia	557	46	565	47	554	7	520	**-44**
	Lithuania	552	42	564	50	548	8	526	**-38**
End G4	Australia ⋈	540	41	562	47	536	12	492	**-70**
	England ⋈	558	43	574	47	551	10	521	**-53**
	Hong Kong SAR	573	29	581	50	575	21	558	**-24**
	Poland	549	66	553	32	548	2	~	~
	Finland	549	55	553	41	548	5	522	**-32**
	New Zealand	521	42	536	46	521	13	489	**-47**
	Singapore	587	36	603	48	585	15	557	**-46**
	PIRLS	503	38	515	45	503	17	480	**-35**

Source: Appendix Table A3.112.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

Tables 3.57 and 3.58 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the PIRLS *Digital Self-Efficacy* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils with *high digital self-efficacy* tended to achieve statistically significantly higher scores across all four subscales compared to their peers with *low digital self-efficacy* in Ireland and all reference countries, with smaller differences noted for Ireland compared to most of the reference countries. In Ireland, smaller mean differences were noted on the Retrieve/Infer subscale – although this difference was still statistically significant.

Table 3.57: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by digital self-efficacy (2021)

		Literary				Informational			
		High digital self-efficacy	**Medium digital self-efficacy**	**Low digital self-efficacy**	**Mean difference between *high* and *low digital self-efficacy***	**High digital self-efficacy**	**Medium digital self-efficacy**	**Low digital self-efficacy**	**Mean difference between *high* and *low digital self-efficacy***
	Ireland	593	580	569	**-24**	581	571	562	**-19**
Start G5	Northern Ireland	587	565	535	**-52**	576	552	530	**-46**
	Croatia	575	567	524	**-50**	563	549	515	**-47**
	Lithuania	562	549	529	**-33**	565	549	523	**-42**
End G4	Australia ⋈	565	540	493	**-72**	561	534	492	**-69**
	England ⋈	573	552	525	**-48**	577	552	520	**-57**
	Hong Kong SAR	570	567	550	**-20**	592	585	566	**-26**
	Poland	556	550	~	~	552	547	~	~
	Finland	551	546	514	**-37**	554	549	521	**-33**
	New Zealand	539	522	493	**-46**	536	520	488	**-48**
	Singapore	607	590	562	**-45**	603	584	555	**-48**
	PIRLS	516	504	480	**-36**	514	502	479	**-35**

Source: Appendix Tables A3.113 and A3.114.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

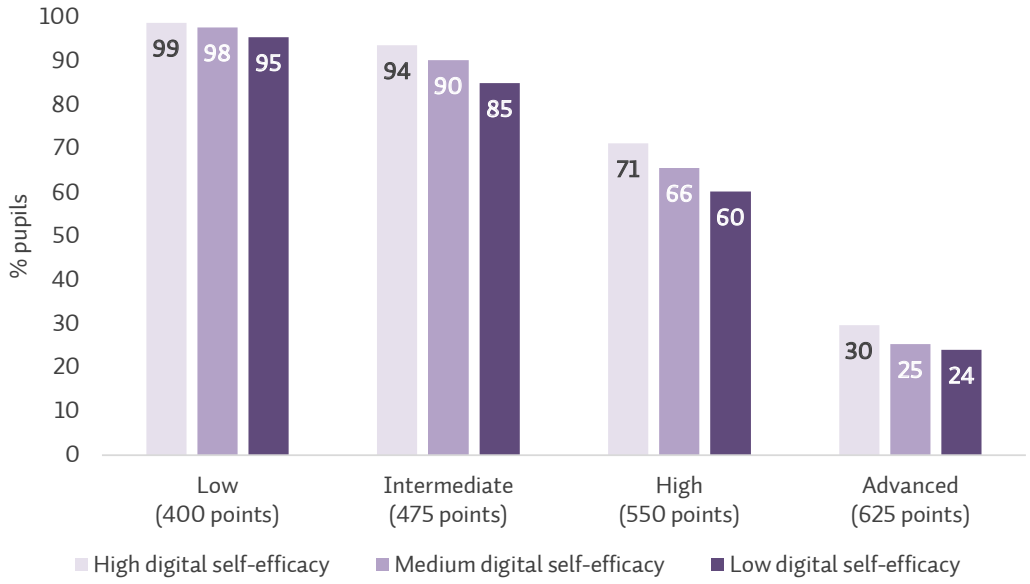
Table 3.58: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by digital self-efficacy (2021)

		Retrieve/Infer				Interpret/Evaluate			
		High digital self-efficacy	**Medium digital self-efficacy**	**Low digital self-efficacy**	**Mean difference between *high* and *low digital self-efficacy***	**High digital self-efficacy**	**Medium digital self-efficacy**	**Low digital self-efficacy**	**Mean difference between *high* and *low digital self-efficacy***
	Ireland	578	569	561	**-16**	591	578	567	**-24**
Start G5	Northern Ireland	571	549	523	**-48**	587	565	538	**-49**
	Croatia	559	551	517	**-43**	571	558	523	**-48**
	Lithuania	565	551	528	**-37**	564	547	520	**-44**
End G4	Australia ⋈	554	530	487	**-68**	570	543	496	**-73**
	England ⋈	571	548	518	**-52**	578	554	527	**-52**
	Hong Kong SAR	586	580	560	**-26**	580	575	558	**-22**
	Poland	548	545	~	~	556	550	~	~
	Finland	554	549	522	**-32**	554	547	519	**-35**
	New Zealand	534	521	492	**-42**	539	521	486	**-54**
	Singapore	598	582	555	**-43**	607	589	560	**-47**
	PIRLS	514	503	480	**-34**	516	503	478	**-37**

Source: Appendix Tables A3.115 and A3.116.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by their digital self-efficacy are shown in Figure 3.37. Percentage differences between the *high digital self-efficacy* and the *low digital self-efficacy* categories were statistically significant across all benchmarks except for the Advanced Benchmark, with the former group of pupils tending to have an advantage compared to the latter. However, these differences were not too substantial, ranging from four to 11 percentage points.

Figure 3.37: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by digital self-efficacy (2021)



Source: Appendix Table A3.117.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Parents' reading attitudes and behaviours

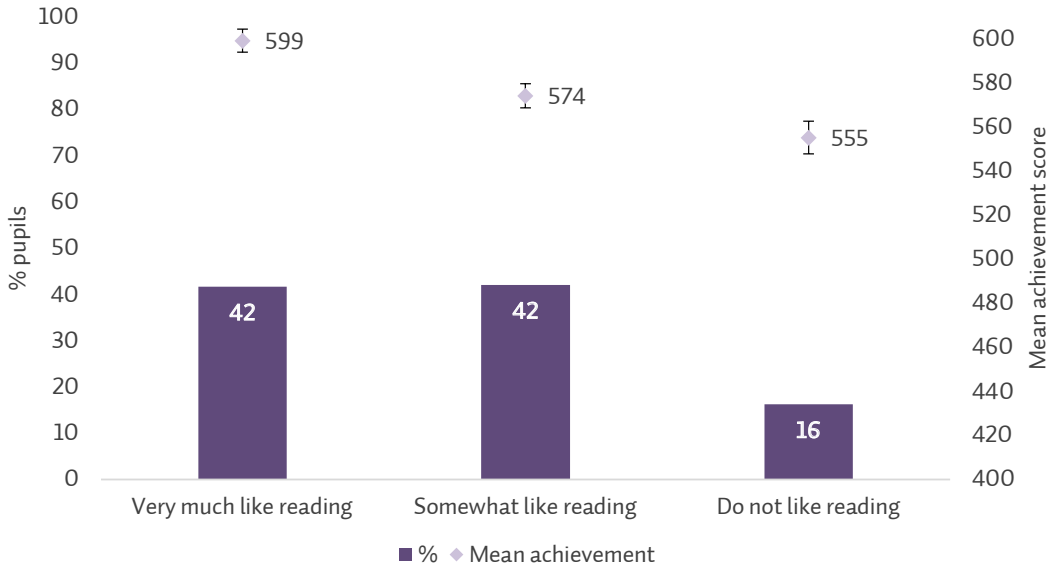
Liking reading

The extent to which pupils' parents liked reading was captured through eight items in the home questionnaire: *I read only if I have to* (reverse coded); *I like talking about what I read with other people*; *I like to spend my spare time reading*; *I read only if I need information* (reverse coded); *Reading is an important activity in my home*; *I would like to have more time for reading*; *I enjoy reading*; *Reading is one of my favourite hobbies*. Pupils' parents were asked how much they agreed or disagreed with each statement. Responses to these eight statements along with those to one more item asking about the frequency with which parents read for their own enjoyment at home (with response options ranging from *every day or almost every day* to *never or almost never*)[24] were used to create the PIRLS *Parents Like Reading* scale, on the basis of which pupils were grouped into three categories: those whose parents *very much like reading*, *somewhat like reading*, or *do not like reading*.

Figure 3.38 shows the percentages and mean achievement of pupils in each category of the PIRLS *Parents Like Reading* scale in Ireland in 2021. Approximately four out of 10 pupils (42%) had parents who indicated that they *very much like reading* and *somewhat like reading*, respectively, and the remaining 16% had parents who indicated that they *do not like reading*. Pupils whose parents *very much like reading* achieved a mean score of 599 points, which was statistically significantly higher than those of their peers whose parents *somewhat like* (574) or *do not like reading* (555).

24 More information about this item can be found in the next subsection.

Figure 3.38: Percentages and mean achievement of pupils in Ireland by parents' liking of reading, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.118.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.59 shows the percentages and mean achievement of pupils in each category of the PIRLS *Parents Like Reading* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The pattern observed in Ireland was also evident in all reference countries, with mean achievement differences between pupils whose parents *very much like reading* and those whose parents *do not like reading*, favouring the former, ranging from 26 points in Hong Kong to 55 points in New Zealand.

Table 3.59: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by parents' liking of reading (2021)

		Overall mean	Very much like reading		Somewhat like reading		Do not like reading		Mean difference between *very much like reading* and *do not like reading*
			%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	42	599	42	574	16	555	**-44**
	Northern Ireland	566	39	595	42	569	19	556	**-39**
	Croatia	557	26	575	56	557	18	535	**-41**
	Lithuania	552	37	589	47	564	16	545	**-44**
End G4	Australia ⋈	540	-	-	-	-	-	-	-
	England ⋈	558	-	-	-	-	-	-	-
	Hong Kong SAR	573	14	592	63	573	24	567	**-26**
	Poland	549	36	566	47	546	17	529	**-37**
	Finland	549	38	573	44	547	18	522	**-51**
	New Zealand	521	44	563	40	532	17	508	**-55**
	Singapore	587	21	622	57	589	23	571	**-51**
	PIRLS	503	31	527	52	500	17	480	**-47**

Source: Appendix Table A3.118.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on parents' liking of reading were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

Tables 3.60 and 3.61 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils in each category of the PIRLS *Parents Like Reading* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils whose parents indicated that they *very much like reading* tended to achieve statistically significantly higher scores across all four subscales compared to their peers whose parents indicated that they *do not like reading*, in Ireland and all reference countries. In Ireland, a slightly smaller mean difference was noted on the Retrieve/Infer subscale compared to the rest of the subscales – however, all differences were substantial and statistically significant.

Table 3.60: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by parents' liking of reading (2021)

		Literary				Informational			
		Very much like reading	**Somewhat like reading**	**Do not like reading**	**Mean difference between *very much like reading* and *do not like reading***	**Very much like reading**	**Somewhat like reading**	**Do not like reading**	**Mean difference between *very much like reading* and *do not like reading***
Start G5	Ireland	607	580	561	**-45**	596	571	553	**-43**
	Northern Ireland	601	575	566	**-35**	592	563	552	**-40**
	Croatia	588	567	547	**-41**	572	553	530	**-42**
	Lithuania	588	561	542	**-46**	590	567	548	**-42**
End G4	Australia ⋈	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-
	Hong Kong SAR	585	565	558	**-27**	601	583	576	**-25**
	Poland	568	550	530	**-38**	565	544	528	**-38**
	Finland	570	547	518	**-52**	574	548	522	**-53**
	New Zealand	567	533	505	**-62**	561	533	508	**-53**
	Singapore	627	593	574	**-53**	623	588	570	**-53**
	PIRLS	528	500	480	**-48**	526	499	480	**-46**

Source: Appendix Tables A3.119 and A3.120.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on parents' liking of reading were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

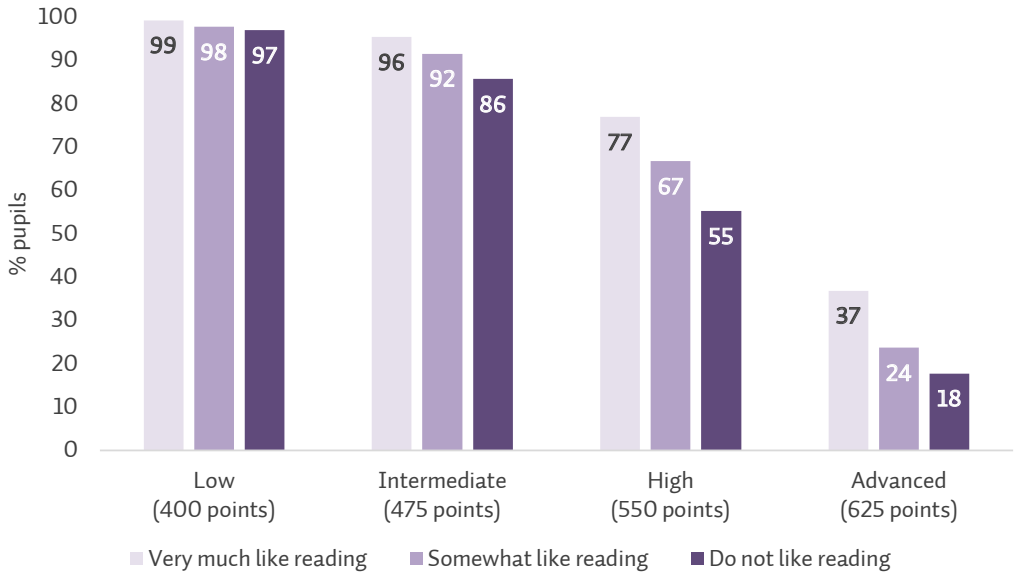
Table 3.61: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by parents' liking of reading (2021)

		Retrieve/Infer				Interpret/Evaluate			
		Very much like reading	**Somewhat like reading**	**Do not like reading**	**Mean difference between *very much like reading* and *do not like reading***	**Very much like reading**	**Somewhat like reading**	**Do not like reading**	**Mean difference between *very much like reading* and *do not like reading***
Start G5	Ireland	592	569	551	**-40**	604	578	560	**-43**
	Northern Ireland	587	561	547	**-40**	602	576	565	**-37**
	Croatia	570	553	531	**-38**	582	562	537	**-45**
	Lithuania	590	568	546	**-44**	589	562	543	**-46**
End G4	Australia ⋈	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-
	Hong Kong SAR	599	578	569	**-29**	592	572	566	**-26**
	Poland	562	541	524	**-38**	568	550	533	**-35**
	Finland	574	549	522	**-52**	572	547	522	**-51**
	New Zealand	559	531	504	**-55**	567	532	510	**-56**
	Singapore	618	586	568	**-51**	625	592	576	**-50**
	PIRLS	527	500	481	**-46**	527	499	480	**-47**

Source: Appendix Tables A3.121 and A3.122.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on parents' liking of reading were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by their parents' liking of reading are shown in Figure 3.39. Although percentage differences between the *very much like reading* and *do not like reading* categories were statistically significant across all benchmarks, with the former group tending to have an advantage compared to the latter, these differences were larger at the High and Advanced Benchmarks. For example, while 99% of pupils whose parents *very much like reading* reached the Low Benchmark as opposed to 97% of pupils whose parents *do not like reading*, a difference of two percentage points, the equivalent differences at the High and Advanced Benchmarks were 22 and 19 percentage points, respectively (77% vs 55% and 37% vs 18%).

Figure 3.39: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by parents' liking of reading (2021)



Source: Appendix Table A3.123.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included a *Parents Like Reading* scale; however, the 2011 scale was slightly different to the corresponding 2016 and 2021 scales.[25] This means that comparisons are only possible between the 2016 and 2021 data (additional information about the scale components across cycles can be found in Appendix Table A3.125). Mean achievement differences between pupils whose parents *very much like reading* and those whose parents *do not like reading* did not change substantially between 2016 and 2021 across both overall reading achievement and all subscales (Table 3.62).

25 In 2016 and 2021, the scale included one item that was not included in the 2011 scale: *Reading is one of my favourite hobbies*. Also, the highest category of the scale was titled *like reading* in 2011 (Martin et al., 2017; Martin & Mullis, 2012).

Table 3.62: Percentages and mean reading achievement of pupils in Ireland, by parents' liking of reading (2016, 2021)

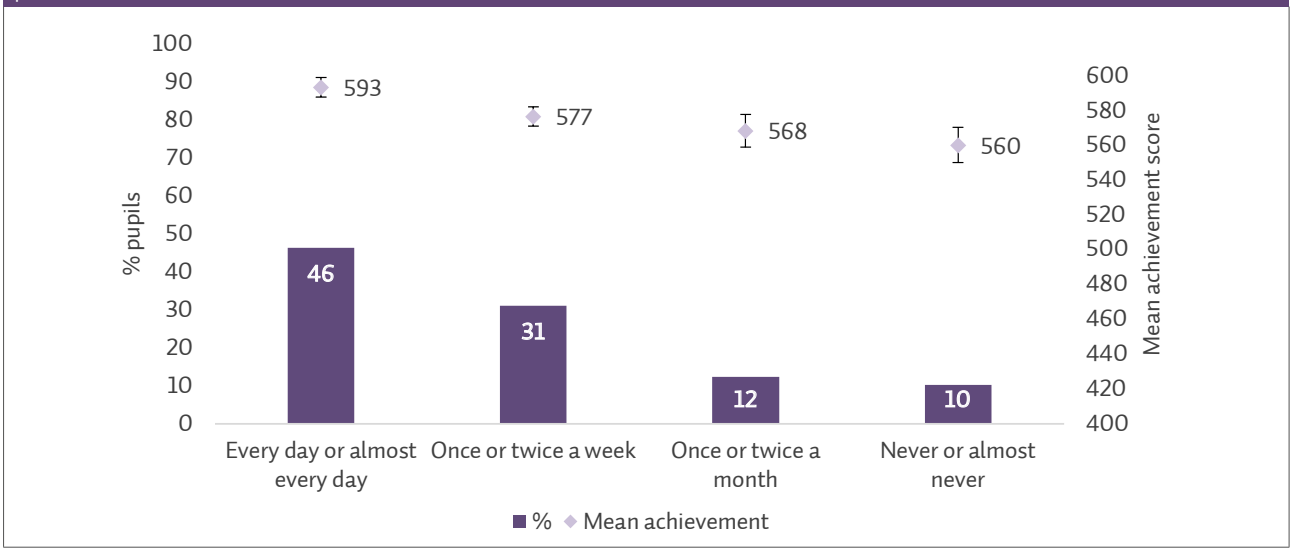
		Very much like reading		Somewhat like reading		Do not like reading		Mean difference between *very much like reading* and *do not like reading*
		%	Mean	%	Mean	%	Mean	
Overall	**2016**	47	588	40	560	13	544	**-43**
	2021	42	599	42	574	16	555	**-44**
Literary	**2016**	47	591	40	565	13	549	**-42**
	2021	42	607	42	580	16	561	**-45**
Informational	**2016**	47	587	40	558	13	542	**-45**
	2021	42	596	42	571	16	553	**-43**
Retrieve/Infer	**2016**	47	586	40	560	13	544	**-42**
	2021	42	592	42	569	16	551	**-40**
Interpret/Evaluate	**2016**	47	591	40	562	13	545	**-46**
	2021	42	604	42	578	16	560	**-43**

Source: Appendix Table A3.124.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. In 2011, the scale components and index category labels differed slightly from those used in 2016 and 2021.

Reading for enjoyment

Parents of PIRLS pupils were asked about the frequency with which they read for their own enjoyment, with response options ranging from *every day or almost every day* to *never or almost never*. Figure 3.40 shows the percentages and mean achievement of pupils whose parents read for their own enjoyment *every day or almost every day*, *once or twice a week*, *once or twice a month*, and *never or almost never* in Ireland in 2021. Approximately half of pupils (46%) had parents who read for their own enjoyment *every day or almost every day*, 31% had parents who read for their own enjoyment *once or twice a week*, 12% had parents who read for their own enjoyment *once or twice a month,* and the remaining 10% had parents who *never or almost never* read for their own enjoyment. Pupils whose parents read for their own enjoyment *every day or almost every day* achieved a mean score of 593 points, which was statistically significantly higher than the scores of the rest of their peers.

Figure 3.40: Percentages and mean achievement of pupils in Ireland by frequency of reading for own enjoyment by parents, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.126.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.63 shows the percentages and mean achievement of pupils by the frequency with which their parents read for their own enjoyment in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The pattern observed in Ireland was also evident internationally, with pupils whose parents read for their own enjoyment *every day or almost every day* achieving the highest mean scores, and mean differences between this group and those whose parents *never or almost never* read for enjoyment ranging between 17 points in Hong Kong and 37 points in Lithuania.

Table 3.63: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of reading for own enjoyment by parents (2021)

		Overall mean	Every day or almost every day		Once or twice a week		Once or twice a month		Never or almost never		Mean difference between *every day or almost every day* and *never or almost never*
			%	Mean	%	Mean	%	Mean	%	Mean	
	Ireland	577	46	593	31	577	12	568	10	560	**-33**
Start G5	Northern Ireland	566	40	589	32	571	14	571	14	562	**-27**
	Croatia	557	37	564	33	557	22	552	8	544	**-20**
	Lithuania	552	36	580	35	570	21	564	9	543	**-37**
	Australia ⋈	540	-	-	-	-	-	-	-	-	-
	England ⋈	558	-	-	-	-	-	-	-	-	-
	Hong Kong SAR	573	28	582	42	571	21	573	8	565	**-17**
End G4	Poland	549	36	559	36	550	19	541	8	534	**-26**
	Finland	549	54	563	26	544	14	538	6	530	**-33**
	New Zealand	521	47	555	28	533	14	531	11	521	**-34**
	Singapore	587	43	605	33	584	16	578	8	577	**-28**
	PIRLS	503	37	515	37	502	16	499	10	484	**-31**

Source: Appendix Table A3.126.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on frequency of reading for own enjoyment by parents were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

Tables 3.64 and 3.65 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils by the frequency with which their parents read for their own enjoyment in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils whose parents read for their own enjoyment *every day or almost every day* tended to achieve statistically significantly higher PIRLS scores across all four subscales compared to their peers whose parents *never or almost never* read for their own enjoyment, in Ireland and all reference countries. In Ireland, mean differences were roughly similar in magnitude across the four subscales.

Table 3.64: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of reading for own enjoyment by parents (2021)

		Literary					Informational				
		Every day or almost every day	**Once or twice a week**	**Once or twice a month**	**Never or almost never**	**Mean difference between *every day or almost every day* and *never or almost never***	**Every day or almost every day**	**Once or twice a week**	**Once or twice a month**	**Never or almost never**	**Mean difference between *every day or almost every day* and *never or almost never***
	Ireland	600	582	574	567	**-34**	590	573	566	559	**-31**
Start G5	Northern Ireland	596	576	580	570	**-26**	585	568	563	556	**-28**
	Croatia	575	569	562	556	**-19**	561	552	548	539	**-21**
	Lithuania	579	568	557	544	**-35**	581	573	567	547	**-33**
End G4	Australia ⋈	-	-	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-	-	-
	Hong Kong SAR	574	563	563	558	**-17**	592	581	583	573	**-19**
	Poland	561	552	546	536	**-25**	558	549	539	533	**-25**
	Finland	560	544	535	528	**-31**	565	543	540	530	**-35**
	New Zealand	558	534	529	521	**-37**	553	532	534	520	**-33**
	Singapore	608	590	585	575	**-33**	605	583	576	578	**-28**
	PIRLS	517	503	499	484	**-32**	515	502	498	483	**-31**

Source: Appendix Tables A3.127 and A3.128.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on frequency of reading for own enjoyment by parents were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

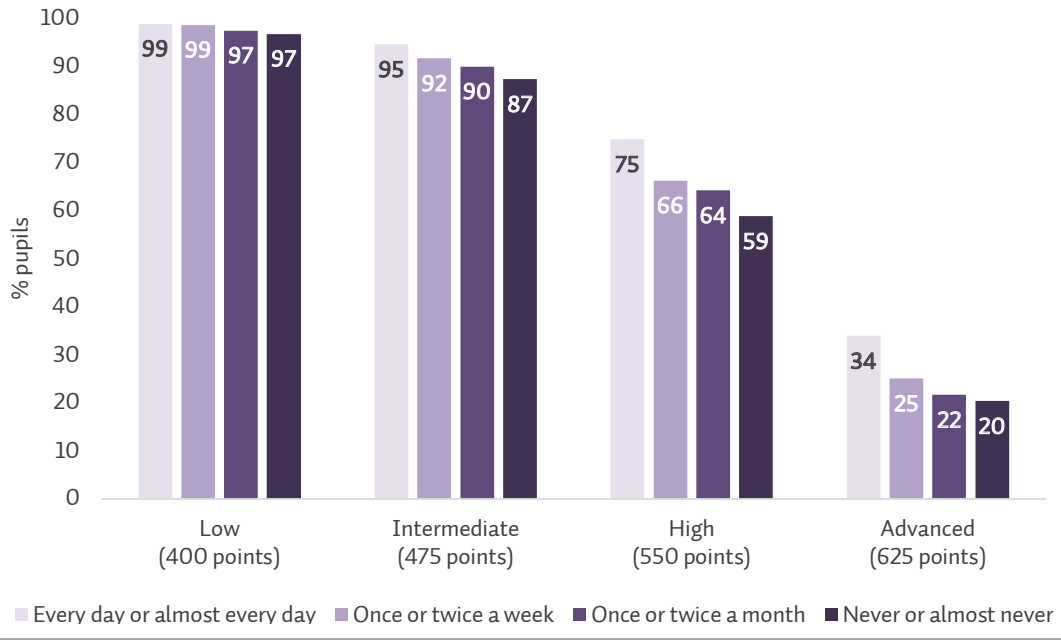
Table 3.65: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by frequency of reading for own enjoyment by parents (2021)

		Retrieve/Infer					Interpret/Evaluate				
		Every day or almost every day	**Once or twice a week**	**Once or twice a month**	**Never or almost never**	**Mean difference between *every day or almost every day* and *never or almost never***	**Every day or almost every day**	**Once or twice a week**	**Once or twice a month**	**Never or almost never**	**Mean difference between *every day or almost every day* and *never or almost never***
Start G5	Ireland	586	571	565	556	**-31**	598	581	572	565	**-33**
	Northern Ireland	580	564	563	552	**-28**	596	577	581	570	**-27**
	Croatia	559	553	549	540	**-20**	569	562	556	548	**-21**
	Lithuania	581	574	568	545	**-36**	581	568	562	538	**-43**
End G4	Australia ⋈	-	-	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-	-	-
	Hong Kong SAR	587	576	578	564	**-23**	583	570	572	563	**-20**
	Poland	554	546	538	528	**-26**	562	554	546	539	**-24**
	Finland	564	545	538	530	**-33**	563	543	538	529	**-34**
	New Zealand	551	531	531	516	**-35**	557	535	536	520	**-36**
	Singapore	601	582	573	576	**-25**	608	588	583	580	**-28**
	PIRLS	515	503	499	484	**-31**	515	501	498	483	**-32**

Source: Appendix Tables A3.129 and A3.130.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on frequency of reading for own enjoyment by parents were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the frequency with which their parents read for their own enjoyment are shown in Figure 3.41. Percentage differences between the *every day or almost every day* and *never or almost never* categories were statistically significant across all benchmarks except for the Low Benchmark, with the former group of pupils tending to have an advantage compared to the latter.

Figure 3.41: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by frequency of reading for own enjoyment by parents (2021)



Source: Appendix Table A3.131.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 asked pupils' parents about the frequency with which they read for their own enjoyment. Proportions of pupils whose parents read for their own enjoyment *every day or almost every day* gradually decreased over time, going from 55% in 2011 to 46% in 2021. Proportions of pupils whose parents *never or almost never* read for their own enjoyment gradually, although only slightly, increased over time, going from 6% in 2011 to 10% in 2021. Mean achievement differences between the two groups of pupils on overall reading achievement have been substantial and statistically significant across all three cycles of PIRLS, and have widened over time, with a larger increase between 2011 and 2016 and a smaller one between 2016 and 2021. Differences on subscales have also widened between 2011 and 2021, although the specific patterns of change observed varied. On the Literary subscale, the score gap remained stable between 2011 and 2016 and widened slightly between 2016 and 2021, while on the Informational subscale, the gap widened between 2011 and 2016 but narrowed somewhat in 2021. On both process subscales, score gaps widened between 2011 and 2016 and remained stable between 2016 and 2021 (Table 3.66).

Table 3.66: Percentages and mean reading achievement of pupils in Ireland, by frequency of reading for own enjoyment by parents (2011, 2016, 2021)

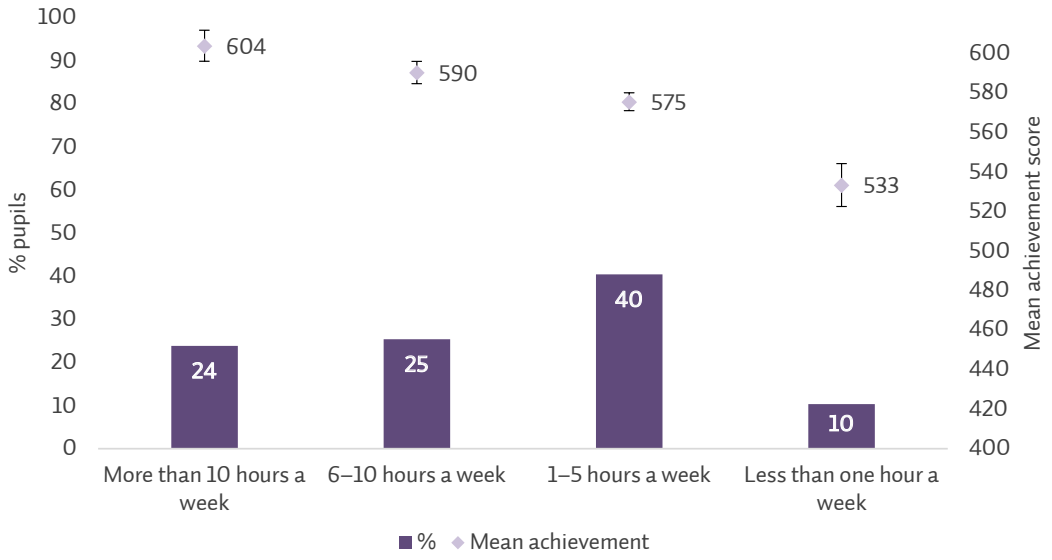
		Every day or almost every day		Once or twice a week		Once or twice a month		Never or almost never		Mean difference between *every day or almost every day* and *never or almost never*
		%	Mean	%	Mean	%	Mean	%	Mean	
Overall	**2011**	55	565	30	545	8	540	6	540	**-25**
	2016	48	581	33	564	12	563	8	550	**-31**
	2021	46	593	31	577	12	568	10	560	**-33**
Literary	**2011**	55	571	30	551	8	547	6	541	**-30**
	2016	48	584	33	570	12	569	8	554	**-30**
	2021	46	600	31	582	12	574	10	567	**-34**
Informational	**2011**	55	563	30	543	8	538	6	536	**-26**
	2016	48	581	33	560	12	562	8	544	**-37**
	2021	46	590	31	573	12	566	10	559	**-31**
Retrieve/Infer	**2011**	55	565	30	545	8	540	6	542	**-24**
	2016	48	581	33	562	12	568	8	548	**-32**
	2021	46	586	31	571	12	565	10	556	**-31**
Interpret/Evaluate	**2011**	55	566	30	547	8	543	6	547	**-19**
	2016	48	583	33	568	12	562	8	550	**-33**
	2021	46	598	31	581	12	572	10	565	**-33**

Source: Appendix Table A3.132.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Time spent on reading

Parents of PIRLS pupils were asked about the time they spent reading for themselves at home in a typical week, including books, magazines, newspapers, and materials for work (in print or digital media), with response options ranging from *more than 10 hours a week* to *less than one hour a week*. Figure 3.42 shows the percentages and mean achievement of pupils by the time their parents spent reading for themselves at home in a typical week in Ireland in 2021. Four out of 10 pupils (40%) had parents who spent *1–5 hours a week* reading for themselves at home, one quarter of pupils had parents who spent *more than 10 hours* and *6–10 hours a week*, respectively, reading for themselves at home, and the remaining 10% had parents who spent *less than one hour a week* reading for themselves at home. Pupils whose parents spent *more than 10 hours a week* reading for themselves achieved a mean score of 604 points, which was statistically significantly higher than the scores of the rest of their peers.

Figure 3.42: Percentages and mean achievement of pupils in Ireland by time spent on reading by parents, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A3.133.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 3.67 shows the percentages and mean achievement of pupils by the time their parents spent reading for themselves at home in a typical week in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The time parents spent reading for themselves did not greatly vary across countries. The pattern noted for Ireland, whereby pupils whose parents spent *more than 10 hours a week* reading for themselves at home had a statistically significantly higher score compared to their peers whose parents spent *less than one hour a week* reading for themselves at home, was noted for all reference countries, albeit to less pronounced degrees, with differences ranging from 31 points in Hong Kong to 70 points in Ireland.

Table 3.67: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by time spent on reading by parents (2021)

		Overall mean	More than 10 hours a week		6–10 hours a week		1–5 hours a week		Less than one hour a week		Mean difference between *more than 10 hours a week* and *less than one hour a week*
			%	Mean	%	Mean	%	Mean	%	Mean	
Start G5	Ireland	577	24	604	25	590	40	575	10	533	**-70**
	Northern Ireland	566	18	592	23	586	48	573	12	550	**-42**
	Croatia	557	20	577	26	567	43	550	10	527	**-50**
	Lithuania	552	24	581	24	579	41	566	10	538	**-43**
End G4	Australia ⋈	540	-	-	-	-	-	-	-	-	-
	England ⋈	558	-	-	-	-	-	-	-	-	-
	Hong Kong SAR	573	15	587	21	581	48	573	16	557	**-31**
	Poland	549	18	569	27	561	45	543	10	522	**-47**
	Finland	549	24	569	30	560	41	542	5	514	**-56**
	New Zealand	521	22	561	28	552	41	531	9	507	**-54**
	Singapore	587	22	618	23	606	42	583	13	553	**-65**
	PIRLS	503	15	528	21	520	44	503	20	474	**-54**

Source: Appendix Table A3.133.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on time spent on reading by parents were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

Tables 3.68 and 3.69 show the mean achievement on each of the reading purpose and comprehension process subscales for pupils by the time their parents spent on reading for themselves at home in a typical week, in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Reflecting the patterns noted for overall reading achievement, pupils whose parents read for themselves at home for *more than 10 hours a week* tended to achieve statistically significantly higher scores across all four subscales compared to their peers whose parents spent *less than one hour a week* on this activity, in Ireland and all reference countries. In Ireland, the largest mean difference (77 points) between these two categories was on the Literary subscale, while the smallest mean difference (65 points) was on the Retrieve/Infer subscale.

Table 3.68: Mean achievement on reading **purpose** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by time spent on reading by parents (2021)

		Literary					Informational				
		More than 10 hours a week	**6–10 hours a week**	**1–5 hours a week**	**Less than one hour a week**	**Mean difference between *more than 10 hours a week* and *less than one hour a week***	**More than 10 hours a week**	**6–10 hours a week**	**1–5 hours a week**	**Less than one hour a week**	**Mean difference between *more than 10 hours a week* and *less than one hour a week***
	Ireland	613	596	582	536	**-77**	600	586	572	531	**-69**
Start G5	Northern Ireland	597	593	581	558	**-39**	591	579	568	549	**-42**
	Croatia	589	578	561	535	**-54**	572	564	546	522	**-51**
	Lithuania	583	579	562	528	**-54**	582	581	569	544	**-38**
	Australia ⋈	-	-	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-	-	-
	Hong Kong SAR	580	572	564	547	**-33**	596	592	582	565	**-31**
End G4	Poland	573	563	545	527	**-46**	570	561	540	519	**-51**
	Finland	567	558	539	516	**-51**	571	561	543	512	**-59**
	New Zealand	559	559	530	511	**-47**	562	549	532	503	**-58**
	Singapore	621	612	587	555	**-67**	618	606	581	553	**-65**
	PIRLS	530	522	504	474	**-55**	527	520	503	474	**-54**

Source: Appendix Tables A3.134 and A3.135.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on time spent on reading by parents were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

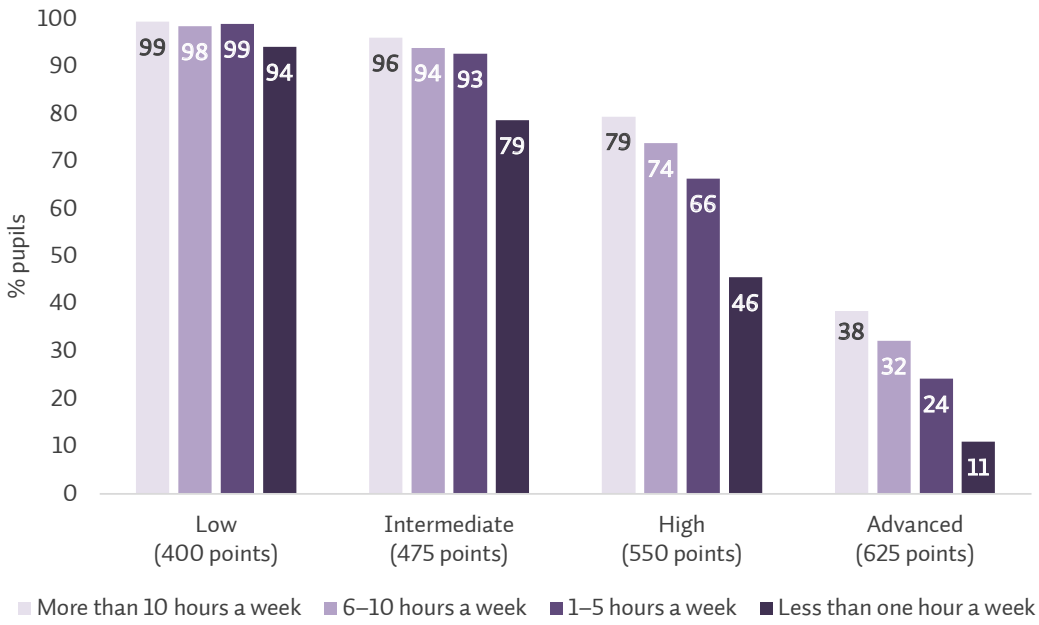
Table 3.69: Mean achievement on reading **process** subscales of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by time spent on reading by parents (2021)

		Retrieve/Infer					Interpret/Evaluate				
		More than 10 hours a week	**6–10 hours a week**	**1–5 hours a week**	**Less than one hour a week**	**Mean difference between *more than 10 hours a week* and *less than one hour a week***	**More than 10 hours a week**	**6–10 hours a week**	**1–5 hours a week**	**Less than one hour a week**	**Mean difference between *more than 10 hours a week* and *less than one hour a week***
Start G5	Ireland	595	585	571	529	**-65**	610	593	581	536	**-74**
	Northern Ireland	582	579	565	542	**-39**	599	593	581	560	**-40**
	Croatia	571	562	547	521	**-51**	583	574	553	532	**-50**
	Lithuania	581	582	571	538	**-43**	582	579	563	537	**-46**
End G4	Australia ⋈	-	-	-	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-	-	-	-
	Hong Kong SAR	590	588	578	556	**-34**	589	579	571	556	**-33**
	Poland	563	559	537	521	**-43**	573	564	547	527	**-45**
	Finland	570	559	544	514	**-56**	570	560	540	514	**-56**
	New Zealand	557	549	529	506	**-51**	562	556	533	506	**-56**
	Singapore	612	603	580	551	**-61**	621	610	586	559	**-63**
	PIRLS	527	521	504	475	**-52**	529	520	503	474	**-55**

Source: Appendix Tables A3.136 and A3.137.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on time spent on reading by parents were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
- Data are not available.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the time their parents spent reading for themselves at home in a typical week are shown in Figure 3.43. Percentage differences between the *more than 10 hours a week* and *less than one hour a week* categories were statistically significant across all benchmarks (with differences as large as 34 percentage points observed), with the former group of pupils tending to have an advantage compared to the latter.

Figure 3.43: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by time spent on reading by parents (2021)



Source: Appendix Table A3.138.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 asked pupils' parents about the time they spent reading for themselves at home in a typical week. The amount of time spent by parents in Ireland reading for themselves at home did not vary greatly over the years. Mean achievement differences between pupils whose parents spent *more than 10 hours a week* and those whose parents spent *less than one hour a week* have been substantial and statistically significant across all three cycles of PIRLS, but they widened considerably between 2011 and 2021 by more than 30 points, on average (Table 3.70).

Table 3.70: Percentages and mean reading achievement of pupils in Ireland, by time spent on reading by parents (2011, 2016, 2021)

		More than 10 hours a week		6–10 hours a week		1–5 hours a week		Less than one hour a week		Mean difference between *more than 10 hours a week* and *less than one hour a week*
		%	Mean	%	Mean	%	Mean	%	Mean	
Overall	**2011**	20	570	25	566	43	549	12	531	**-39**
	2016	20	581	27	582	42	567	11	537	**-44**
	2021	24	604	25	590	40	575	10	533	**-70**
Literary	**2011**	20	578	25	570	43	555	12	536	**-43**
	2016	20	585	27	584	42	573	11	543	**-42**
	2021	24	613	25	596	40	582	10	536	**-77**
Informational	**2011**	20	565	25	564	43	547	12	530	**-35**
	2016	20	583	27	580	42	565	11	532	**-51**
	2021	24	600	25	586	40	572	10	531	**-69**
Retrieve/Infer	**2011**	20	571	25	564	43	549	12	532	**-38**
	2016	20	581	27	581	42	567	11	536	**-45**
	2021	24	595	25	585	40	571	10	529	**-65**
Interpret/Evaluate	**2011**	20	571	25	569	43	550	12	536	**-35**
	2016	20	583	27	584	42	571	11	537	**-46**
	2021	24	610	25	593	40	581	10	536	**-74**

Source: Appendix Table A3.139.
Notes. Statistically significant mean differences in **bold**. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Chapter summary

This chapter focused on the relationships of selected pupil and home characteristics with the reading achievement, overall and across the four PIRLS subscales, of pupils in Ireland in PIRLS 2021. Ireland's data were compared to those of selected reference countries and the corresponding averages across all PIRLS countries, while data from PIRLS 2011 and 2016 were also compared to those from 2021, where appropriate. As noted in Chapter 1, PIRLS 2021 data must be interpreted in the context of important caveats, which are particularly relevant for countries that tested at Start G5 (including Ireland).

Demographic background and home environment

Pupils born in Ireland (92%) achieved a slightly higher mean score than their peers who were not born in Ireland. Although this mean difference was not statistically significant for overall reading achievement, mean differences on the Literary and Retrieve/Infer subscales were larger than those on the other two subscales and were statistically significant, favouring pupils born in Ireland. Percentages of pupils reaching each International Benchmark were broadly similar between these two groups, while mean achievement differences seemed to narrow between 2016 and 2021 across both overall reading achievement and all subscales. Across reference countries, there was variation in the magnitude and direction of mean achievement differences between pupils born in the country of the PIRLS test and those born outside the country.

Pupils who almost always spoke the language of the PIRLS test at home in Ireland (11%) achieved the highest mean score (597) among their peers (i.e., those who always, sometimes,

or never spoke the language of the PIRLS test at home) – a pattern also evident internationally in 2021 and across PIRLS cycles within Ireland. Higher percentages reaching each of the four International Benchmarks were also noted for these pupils, with this advantage being more apparent with every subsequent benchmark.

While the vast majority of pupils (95% and 98%, respectively) who took part in PIRLS 2021 in Ireland attended a formal educational programme for children aged 3 or older and Junior Infants/Senior Infants, approximately 60% attended a formal educational programme for children under 3. Although pupils who attended such a programme performed similarly to their peers who did not, pupils who attended a formal educational programme for children aged 3 or older achieved a statistically significantly higher mean score (586) than their peers who did not (535). Patterns noted for overall reading achievement for the two types of programmes were also evident across all subscales and in the percentages of pupils reaching each of the International Benchmarks. Given that only 2% of pupils were reported not to have attended Junior Infants/Senior Infants, the comparison of their reading achievement with the rest of their peers would be statistically inappropriate and, thus, has not been reported.

Almost no pupils in Ireland (1%) were reported by their parents to *never* be involved in early literacy activities (e.g., read books, play with alphabet toys, etc.) before starting First Class, while more than half (56%) were reported to be *often* involved in such activities. The latter group achieved the highest mean score (592) among their peers, a pattern also evident internationally. Mean differences were similar in magnitude across the four subscales in Ireland. Higher percentages reaching each of the four International Benchmarks were noted among those pupils who were *often* involved in early literacy activities compared to the rest of their peers. The proportion of pupils *often* involved in early literacy activities remained stable across years and mean differences have consistently favoured this group.

More than half of pupils in Ireland (60%) were reported by their parents to be able to do a range of literacy tasks (e.g., read some words, write letters of the alphabet, etc.) *very well* before they started First Class, which was the highest percentage across PIRLS countries (although, due to some variation across countries in the stage of schooling referenced, international comparisons on this variable must be made cautiously). These pupils achieved the highest mean score (602) among their peers, a pattern also evident internationally. Notably, among the reference countries, Ireland had the second largest mean achievement difference between pupils reported to be able to do these literacy tasks *very well* and those reported to be able to do them *not well* (82 points), following Singapore (105 points). Percentage differences between the *very well* and *not well* categories were statistically significant across all International Benchmarks, with the former group tending to have an advantage compared to the latter. Although percentages of pupils within each of the categories were almost identical between 2016 and 2021, mean achievement differences widened between the two cycles across both overall reading achievement and all subscales.

Based on the PIRLS 2021 data, approximately 40% of pupils in Ireland were expected by their parents to complete an undergraduate degree (e.g., Bachelor's), while 35% were expected to complete a postgraduate degree. Only 5% of pupils were expected to complete up to the Leaving Certificate (only) and a PLC course or apprenticeship, respectively, and 17% were expected to complete a third-level certificate or diploma (not to degree level). Pupils' mean scores in 2021 gradually increased with each increase in their expected education level (a pattern also evident across PIRLS cycles), going from 509 at the lowest level to 599 at the highest level, as did the percentages of pupils reaching each of the International Benchmarks. Pupils

expected to complete up to the Leaving Certificate (only) achieved a statistically significantly lower mean score (509) than the rest of their peers except for those expected to complete a PLC course or apprenticeship (525). A slightly larger mean difference was noted on the Informational subscale compared to the other three subscales. Although percentages of pupils expected to complete lower levels of education remained relatively stable across years, percentages of pupils expected to complete a third-level certificate or diploma (not to degree level) and complete an undergraduate degree (e.g., Bachelor's) slightly decreased, and percentages of pupils expected to complete a postgraduate degree (e.g., Master's or Doctorate) increased (mostly between 2011 and 2016).

In Ireland, approximately three out of four pupils (74%) and more than half of pupils (54%) had their own computer or tablet and their own smartphone, respectively. While these pupils achieved statistically significantly lower mean scores than their peers who did not have their own digital devices, the magnitude and direction of such mean achievement differences varied across countries. In Ireland, mean achievement differences between pupils with and without their own computer or tablet were larger on the Informational and Retrieve/Infer subscales compared to the other two subscales, where mean differences were not statistically significant, while mean differences were broadly similar in magnitude across all subscales based on pupils' access to their own smartphone. More substantial percentage differences across the International Benchmarks were noted based on pupils' access to their own smartphone compared to their access to their own computer or tablet, but all differences favoured pupils who did not own these digital devices.

Wellbeing

Approximately half of pupils in Ireland in 2021 reported that they *sometimes* felt tired and hungry, respectively, when they arrived at school. Although only 6% of pupils reported *never* feeling tired upon school arrival, 32% of pupils reported *never* feeling hungry upon school arrival. Pupils who reported feeling tired or hungry when they arrived at school *every day* achieved the lowest mean scores (549 and 555, respectively), which were statistically significantly lower than the scores of the rest of their peers (with only one exception: the relative advantage of the pupils who reported feeling hungry upon school arrival *almost every day* was not statistically significant). Also, pupils who reported *sometimes* feeling tired and those who reported *never* feeling hungry achieved the highest mean scores. All these patterns were also evident in most of the selected reference countries. Percentages of pupils in Ireland reaching each International Benchmark reflected the patterns noted for continuous achievement. While mean achievement differences seemed to narrow between pupils in the *every day* and *never* categories for both tiredness and hunger between 2016 and 2021 across both overall reading achievement and all subscales, percentages of pupils reporting to feel tired or hungry *every day* or *almost every day* increased between 2016 and 2021.

Reading behaviours

Approximately three out of 10 of pupils in Ireland in 2021, respectively, reported that they borrowed books or e-books from their school or local library *at least once a week* or *once or twice a month*, 20% that they did so *a few times a year*, and 23% that they *never or almost never* did so. Pupils who borrowed books or e-books from a library *once or twice a month* achieved the highest mean score (587) and were most likely to reach each of the four International Benchmarks. Notably, the mean achievement difference between pupils who borrowed books or e-books from a library *at least once a week* and those who *never or almost never* did so was not statistically significant. The magnitude and direction of mean achievement differences

between these two groups varied across countries, while, in Ireland, these mean differences were broadly similar in magnitude across all subscales. Fewer pupils reported borrowing books or e-books *at least once a week* in 2021 than in previous PIRLS cycles and more pupils reported *never or almost never* doing so. Also, while in 2021 pupils in Ireland who reported borrowing books or e-books *at least once a week* achieved a slightly (though not statistically significantly) *lower* mean score than their peers who reported *never or almost never* doing so, in 2011 and 2016 the former group of pupils achieved a statistically significantly higher mean score than the latter group. These data, though, need to be interpreted with caution given that the administration of PIRLS 2021 took place in the midst of the COVID-19 pandemic and pupils may not have had the opportunity to use their school or local library in the same way they would in previous years.

More than half of pupils in Ireland in 2021 reported that they spent *30 minutes or less* on a normal school day using digital devices to find and read information, 27% reported that they spent *no time*, and 16% that they spent *more than 30 minutes* on this activity. The latter group achieved the lowest mean score, while pupils who reported spending *no time* using digital devices to find and read information on a normal school day achieved the highest mean score. In Ireland, the largest mean difference (20 points) between these two categories was on the Literary subscale, favouring the *no time* category. Percentage differences between the *more than 30 minutes* and *no time* categories, favouring the latter, widened with every subsequent benchmark and were statistically significant at the High and Advanced Benchmarks. The time spent using digital devices to find and read information varied across countries as did the magnitude and direction of mean achievement differences between the *more than 30 minutes* and *no time* categories. While this mean difference was in favour of the *no time* category in Ireland, differences across countries mostly favoured the *more than 30 minutes* category. The percentage of pupils spending *more than 30 minutes* on a normal school day using digital devices to find and read information increased by five percentage points between 2016 and 2021, and the percentage of pupils spending *no time* on this activity decreased by 10 percentage points, while mean achievement differences between these categories narrowed between 2016 and 2021 across both overall reading achievement and all subscales.

Reading attitudes

Based on the PIRLS 2021 data, approximately half of pupils (49%) in Ireland indicated that they were *very confident* in reading, 31% that they *very much like reading*, and 53% that they were *very engaged* in reading lessons. On the other hand, 17% of pupils indicated that they were *not confident* in reading, 23% that they *do not like reading*, and 5% that they were *less than engaged* in reading lessons. *Very confident* pupils, those who *very much like reading*, and those who are *very engaged* in reading lessons achieved the highest mean scores compared to their peers, with the largest differences relating to the extent to which pupils felt confident in reading. These patterns observed in Ireland were also evident internationally. In Ireland, the smallest mean difference between *very confident* and *not confident* pupils was on the Retrieve/Infer subscale; mean differences between pupils who *very much like reading* and those who *do not like reading* were slightly smaller on the process subscales (Retrieve/Infer and Interpret/Evaluate) than the purpose subscales (Literary and Informational); and slightly smaller mean differences between *very engaged* and *less than engaged* pupils were noted on the Informational and Interpret/Evaluate subscales than the other two subscales – however, all these differences were still statistically significant and most were substantial.

Across the four International Benchmarks, percentage differences between *very confident*

and *not confident* pupils, and pupils who *very much like reading* and those who *do not like reading*, favouring the pupils with more positive reading attitudes in each case, were mostly statistically significant and widened with every subsequent benchmark. Percentage differences between *very engaged* and *less than engaged* pupils were statistically significant at the higher benchmarks (High and Advanced) only.

Overall, pupils in Ireland seemed to have less positive attitudes to reading in 2021 compared to 2016. Proportions of *very confident* pupils, pupils who *very much like reading*, and those who are *very engaged* in reading lessons decreased between the two PIRLS cycles, while proportions of *not confident* pupils and pupils who *do not like reading* increased. Mean achievement differences between *very confident* and *not confident* pupils also widened between 2016 and 2021 across both overall reading achievement and most of the subscales, while mean achievement differences between pupils who *very much like reading* and those who *do not like reading* narrowed between the two PIRLS cycles. Mean achievement differences between *very engaged* and *less than engaged* pupils increased between cycles, but only marginally.

Digital attitudes

Based on the PIRLS 2021 data, pupils in Ireland enjoyed reading on paper more than reading on a screen, and they found it easier to remember things they read on paper than on a screen. Higher levels of enjoyment of reading on paper and finding it easy to remember things read on paper were associated with statistically significantly higher mean scores, while patterns were less clear-cut when it came to enjoying reading on a screen or finding it easy to remember things read on a screen, with these patterns also being consistent across all subscales.

Percentage differences between the *agree a lot* and *disagree a lot* categories in the *I enjoy reading on paper* and *I find it easy to remember things I read on paper* questions were statistically significant across all benchmarks except for the Low Benchmark, and widened with every subsequent benchmark, with pupils who agreed a lot tending to have an advantage compared to those who disagreed a lot. Regarding pupils' levels of enjoyment of reading on a screen and the extent to which they found it easy to remember things they read on a screen, clear-cut patterns across the benchmarks were not detected.

Approximately four out of 10 pupils (43%) indicated that they have *high digital self-efficacy*, 45% that they have *medium digital self-efficacy*, and 12% that they have *low digital self-efficacy*. Pupils with *high digital self-efficacy* achieved the highest mean score among their peers. A smaller mean difference was noted between pupils with *high digital self-efficacy* and those with *low digital self-efficacy* on the Retrieve/Infer subscale compared to the other subscales – though this difference was still statistically significant. Although percentage differences between the *high* and *low* categories of digital self-efficacy were statistically significant across all benchmarks except for the Advanced Benchmark, with the former group of pupils tending to have an advantage compared to the latter, these differences were not very substantial.

Parents' reading attitudes and behaviours

Approximately four out of 10 pupils (42%) who took part in PIRLS 2021 in Ireland had parents who *very much like reading*, 46% had parents who read for their own enjoyment *every day or almost every day*, and 24% had parents who spent *more than 10 hours a week* reading for themselves at home. On the other hand, 16% of pupils had parents who *do not like reading*, and 10% had parents who *never or almost never* read for their own enjoyment and spent *less than one hour a week* reading for themselves at home, respectively. Pupils whose parents *very much like reading*, those whose parents read for their own enjoyment *every day or almost every*

day, and those whose parents spent *more than 10 hours a week* reading for themselves at home achieved the highest mean scores compared to their peers. These patterns observed in Ireland were also evident internationally, but, across the selected reference countries, Ireland had the largest mean difference (70 points) between pupils whose parents indicated that they read for themselves at home for *more than 10 hours a week* and those whose parents spent *less than one hour a week* on this activity.

A slightly smaller mean achievement difference was noted between pupils whose parents *very much like* reading and those whose parents *do not like reading* on the Retrieve/Infer subscale compared to the rest of the subscales. Between pupils whose parents read for themselves at home for *more than 10 hours a week* and those whose parents did this for *less than one hour a week*, the largest mean difference (77 points) was on the Literary subscale and the smallest (65 points) was on the Retrieve/Infer subscale. Mean differences were similar in magnitude across the four subscales based on the frequency with which pupils' parents read for their own enjoyment.

Percentage differences between pupils whose parents *very much like reading* and those whose parents *do not like reading*, as well as between pupils whose parents read for themselves at home for *more than 10 hours a week* versus for *less than one hour a week*, favouring the former group in each case, were statistically significant across all International Benchmarks and larger at the higher benchmarks (High and Advanced). Percentage differences between pupils whose parents read for their own enjoyment *every day or almost every day* and those whose parents *never or almost never* did so were statistically significant across all benchmarks except for the Low Benchmark, with the former group of pupils tending to have an advantage compared to the latter.

Overall, and in line with the patterns noted for pupils' reported reading attitudes, proportions of pupils whose parents indicated that they *very much like reading* and read for their own enjoyment *every day or almost every day* decreased across PIRLS cycles, while proportions of pupils whose parents indicated that they *do not like reading* and *never or almost never* read for their own enjoyment increased. Mean achievement differences between pupils whose parents *very much like reading* and those whose parents *do not like reading* remained stable across years, while mean achievement differences between pupils whose parents read for their own enjoyment *every day or almost every day* and those whose parents *never or almost never* did so, and between pupils whose parents spent *more than 10 hours a week* versus *less than one hour a week* reading for themselves at home, widened across PIRLS cycles.

PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

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CHAPTER 4

Chapter 4: Reading Achievement by Class and Teacher Characteristics

As part of PIRLS 2021, teachers of sampled classes were asked to complete questionnaires, as described in Chapter 1. This chapter focuses mainly on class and teacher characteristics, as captured through these questionnaires, and relationships of these characteristics with the reading achievement of pupils in Ireland. Reports from principals of participating schools and participating pupils are also included in the chapter to shed further light on the challenges in reading instruction. Ireland's data for 2021 are compared to those of previous PIRLS cycles in 2011 and 2016, where available, to examine trends.

Organisation of reading instruction, teaching, and assessment

The teacher questionnaire includes a range of questions relating to reading instruction which provide a picture of what reading lessons were typically like for the pupils who participated in PIRLS 2021.

This section examines: time spent on English language instruction, organisation of reading instruction, activities and strategies used in reading lessons, tasks used to help develop comprehension skills, text types used during reading activities, availability and use of resources such as library/reading corner and digital devices during reading lessons, post-reading activities, reading homework, and assessment strategies in reading.

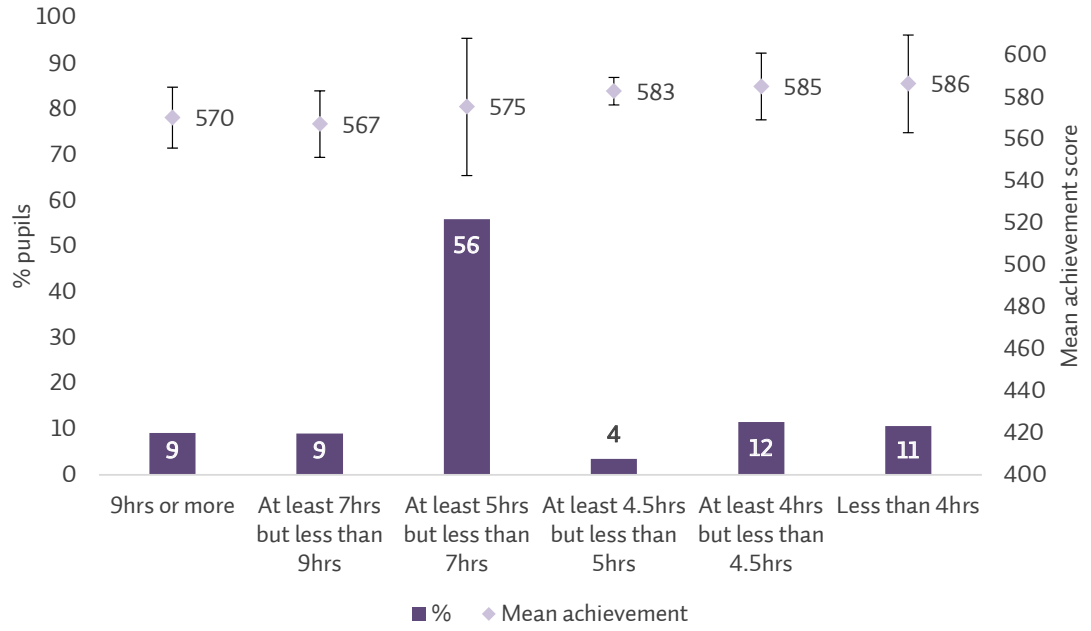
Time spent on English language instruction

Teachers were asked to indicate how much time per week they spent on instruction and activities related to the language of the PIRLS test (i.e., in Ireland's case, teachers were asked how much time they spent on English language instruction and/or activities).[26] The question specified that this could include instruction or activities in reading, writing, speaking, listening, literature, and other language skills.

Figure 4.1 shows the percentages and mean achievement of pupils by the time spent on English language instruction. More than half of pupils (56%) received between five and seven hours of English language instruction per week. Broadly similar proportions (of approximately 10%) were reported for all other categories, with the exception of *at least 4.5 hrs but less than 5 hrs*, where the proportion was less than 5%. None of the mean PIRLS scores were statistically significantly different from that of the *9hrs or more* category, which was used as a reference.

26 To date, the PIRLS test has been administered only in English in Ireland, as to administer it in Irish would require oversampling of Irish-medium schools, which would increase their testing burden. However, questionnaires are provided in both Irish and English for participants in Irish-medium schools.

Figure 4.1: Percentages and mean achievement of pupils in Ireland by time spent on English language instruction, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.1.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

This question was also included in PIRLS 2016. Similar to PIRLS 2021, the majority of pupils (52%) had teachers who reported spending *at least 5hrs but less than 7hrs* on English language instruction (Appendix Table 4.1). The proportions in each of the categories were broadly similar between 2016 and 2021, but there was a decrease of five percentage points in the proportion of the *9hrs or more* category between the two cycles.

Organisation of reading instruction

Teachers were presented with five organisational approaches including teaching reading as a whole-class activity, creating same-ability or mixed-ability groups, providing individualised instruction or assigning pupils to work independently on a plan or goal. They were asked to indicate the frequency (*always or almost always, often, sometimes,* or *never*) with which they used each of these approaches during reading lessons and/or activities. Table 4.1 presents the percentages and mean achievement of pupils in Ireland by the frequency with which their teachers used the various organisational approaches in reading lessons and/or activities.

Teaching reading as a whole-class activity was the most frequently used approach with almost one-third of pupils (32%) taught by teachers who *always or almost always* taught reading as a whole-class activity and approximately a further half of pupils (49%) who *often* experienced reading as a whole-class activity. All other approaches were less commonly used in Ireland. Group work included two approaches: same-ability groups and mixed-ability groups. Over one-third of pupils (36%) were taught by teachers who created same-ability groups either *often* (27%) or *always or almost always* (8%). Mixed-ability groups were used slightly more frequently (43% of pupils had teachers who used this approach *often* [36%] or *always or almost always* [7%]). Over half of pupils (57%) had teachers who used the approach of having pupils work independently on an assigned plan or goal either *always or almost always* (9%) or *often* (49%), while individualised instruction for reading was used somewhat less frequently in Ireland (35% of pupils had teachers who used this approach *always or almost always* [5%] or *often* [30%]).

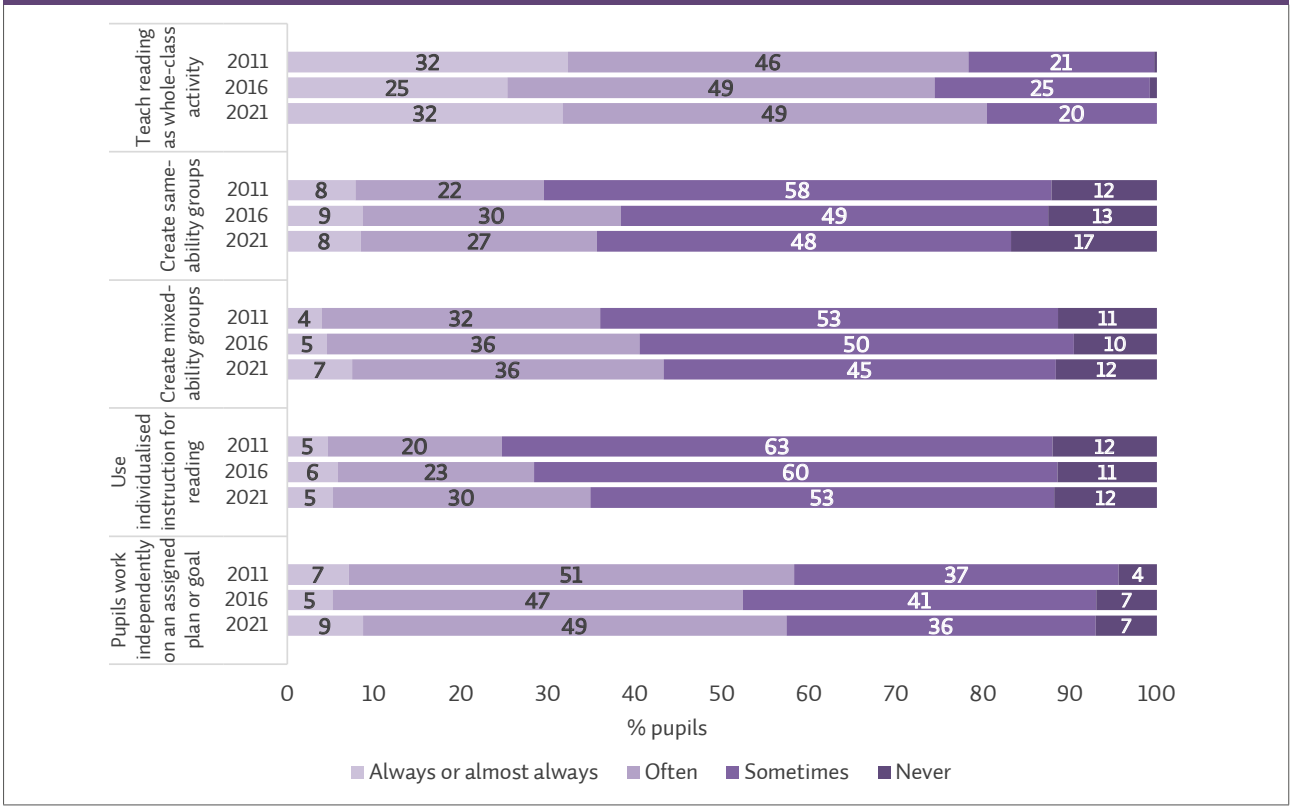
Table 4.1: Percentages and mean achievement of pupils in Ireland, by organisation of class instruction (2021)

	Always or almost always		Often		Sometimes		Never	
	%	Mean	%	Mean	%	Mean	%	Mean
Teach reading as whole-class activity	32	585	49	578	20	560	0	~
Create same-ability groups	8	559	27	566	48	583	17	585
Create mixed-ability groups	7	579	36	575	45	575	12	588
Use individualised instruction for reading	5	580	30	571	53	577	12	589
Pupils work independently on an assigned plan or goal	9	582	49	576	36	577	7	570

Source: Appendix Table A4.2.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Figure 4.2 presents the percentages of pupils by the frequency with which their teachers used the various organisational approaches in reading instruction and/or activities in 2011, 2016, and 2021. Whole-class instruction has consistently been the most frequently used approach. Between 2011 and 2016, there had been a decrease (though not statistically significant) in the percentage of pupils whose teachers *always or almost always* used whole-class instruction for reading (Delaney et al., 2022). This trend did not hold in 2021 where the proportion is similar to that observed in 2011. On the other hand, the frequency of both creating mixed ability groups and using individualised instruction for reading has increased slightly over time (from 2011 to 2021).

Figure 4.2: Percentages of pupils in Ireland, by organisation of class instruction (2011, 2016, 2021)



Source: Appendix Table A4.2.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Activities and strategies used in reading lessons

Teachers were asked two questions relating to the activities and strategies used during reading lessons. Firstly, teachers were presented with the following range of reading activities: *Read aloud to pupils; Ask pupils to read aloud; Ask pupils to read silently on their own; Teach pupils strategies for decoding sounds and words; Teach pupils new vocabulary systematically; Provide opportunities for pupils to develop fluency; Teach or model skimming or scanning strategies; Teach digital literacy skills.* They were asked to indicate the frequency with which they completed each of the activities (*every day or almost every day*, *once or twice a week*, *once or twice a month*, or *never or almost never*). Secondly, teachers were asked to indicate the proportion of reading lessons which included specific teaching and learning strategies including providing reading materials which match pupils' interests, linking new content to pupils' prior knowledge, and encouraging pupil discussions of texts.

Table 4.2 presents the percentages and mean achievement of pupils in Ireland by the frequency with which their teachers completed various activities during reading lessons. Approximately three-quarters of pupils were taught by teachers who read aloud to pupils (71%), asked pupils to read aloud (79%), and asked pupils to read silently on their own (74%) on a daily or near-daily basis. Almost all pupils experienced these activities at least *once or twice a week*. The next most frequently used activities included a new addition in PIRLS 2021, providing opportunities for pupils to develop fluency (45%, *every day or almost every day*), and teaching pupils new vocabulary systematically (37%, *every day or almost every day*). Teaching strategies for decoding sounds and words and teaching or modelling skimming or scanning strategies were less likely to be used on a daily or near-daily basis (24% and 15%, respectively), while teachers of just over half (53%, respectively) reported doing these on a roughly weekly basis. Another new addition to this question in PIRLS 2021 was the activity of teaching digital literacy skills. Less than one-tenth of pupils in Ireland (9%) had teachers who completed this on a daily or near-daily basis, while one-fifth (20%) of pupils had teachers who *never or almost never* taught digital literacy skills. Across all these activities, with the exception of teaching digital literacy skills, very small proportions of pupils were taught by teachers who *never or almost never* completed these activities.

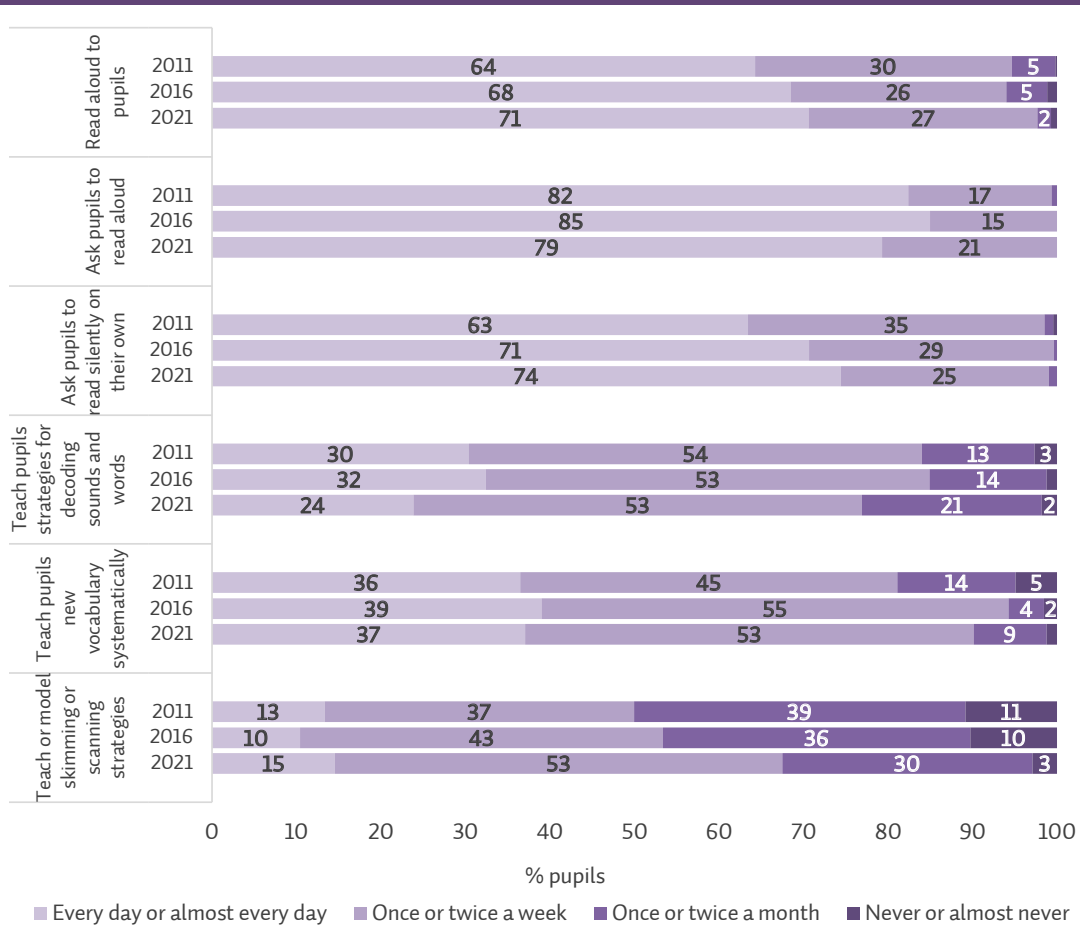
Table 4.2: Percentages and mean achievement of pupils in Ireland, by the frequency with which their teachers completed certain activities during reading lessons (2021)

	Every day or almost every day		Once or twice a week		Once or twice a month		Never or almost never	
	%	Mean	%	Mean	%	Mean	%	Mean
Read aloud to pupils	71	575	27	582	2	~	1	~
Ask pupils to read aloud	79	577	21	580	0	~	0	~
Ask pupils to read silently on their own	74	578	25	575	1	~	0	~
Teach pupils strategies for decoding sounds and words	24	570	53	578	21	582	2	~
Teach pupils new vocabulary systematically	37	575	53	580	9	570	1	~
Provide opportunities for pupils to develop fluency	45	574	49	580	5	583	1	~
Teach or model skimming or scanning strategies	15	575	53	574	30	583	3	590
Teach digital literacy skills (e.g., reading, writing, and communicating using digital tools and media)	9	576	30	568	41	579	20	588

Source: Appendix Table A4.3.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Figure 4.3 presents the percentages of pupils in Ireland by the frequency with which their teachers completed certain activities during reading lessons in 2011, 2016, and 2021.[27] The activities of reading aloud to pupils, asking pupils to read aloud, and asking pupils to read silently on their own were frequently completed across each of the PIRLS cycles with the majority of pupils taught by teachers who completed these activities at least weekly. The frequency with which teachers taught pupils strategies for decoding sounds and words at least weekly was generally steady between 2011 and 2016 but decreased between 2016 and 2021. Teaching pupils new vocabulary systematically, on at least a weekly basis, increased between 2011 and 2016 but this trend reversed between 2016 and 2021, as it decreased, although not to the proportions reported in 2011. Conversely, the proportion of pupils whose teachers taught skimming or scanning strategies at least weekly has increased across cycles (50% in 2011, 53% in 2016, and 67% in 2021), with the steeper increase between 2016 and 2021, highlighting that this appears to be an area of increasing focus for teachers.

Figure 4.3: Percentages of pupils in Ireland, by the frequency with which their teachers completed certain activities during reading lessons (2011, 2016, 2021)



Source: Appendix Table A4.3.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The second question relates to the frequency with which teachers used various teaching and learning strategies during reading lessons. Table 4.3 presents the percentages and mean achievement of pupils in Ireland by the frequency with which their teachers used the various strategies during reading lessons. Most pupils in Ireland had teachers who reported

27 The trend figure here and other trend figures in this chapter include only those questions which have been asked consistently across PIRLS cycles.

encouraging pupil discussions of texts either in *every or almost every lesson* (84%) or *about half the lessons* (13%). Over half of pupils had teachers who, in *every or almost every lesson*, encouraged pupils to deepen their understandings of the text (65%), provided materials appropriate for the reading levels of individual pupils (61%), and linked new content to pupils' prior knowledge (52%). Encouraging pupils to read texts with multiple perspectives and giving individualised feedback to each pupil were the least-frequently used strategies, although over half of pupils had teachers who reported using these in *about half the lessons* or more (53% and 55%, respectively). Across all strategies, very small proportions of pupils (1% or less) were taught by teachers who reported *never* using the different strategies. The only exception to this is the case of encouraging pupils to read texts with multiple perspectives, where a slightly larger proportion (5% of pupils) were taught by teachers who reported *never* doing this.

Table 4.3: Percentages and mean achievement of pupils in Ireland, by the frequency with which their teachers used certain strategies during reading lessons (2021)

	Every or almost every lesson		About half the lessons		Some lessons		Never	
	%	Mean	%	Mean	%	Mean	%	Mean
Provide reading materials that match the pupils' interests	24	578	44	577	32	575	0	~
Provide materials that are appropriate for the reading levels of individual pupils	61	574	22	581	16	580	1	~
Link new content to pupils' prior knowledge	52	577	35	578	13	575	0	~
Encourage pupils to deepen their understandings of the text	65	579	27	572	8	573	0	~
Encourage pupil discussions of texts	84	578	13	568	3	576	0	~
Encourage pupils to challenge the opinion expressed in the text	42	584	35	572	23	571	0	~
Encourage pupils to read texts with multiple perspectives	22	587	32	569	42	579	5	564
Give pupils time to read books of their own choosing	45	577	22	573	32	580	1	~
Give individualised feedback to each pupil	17	576	38	574	43	579	1	~

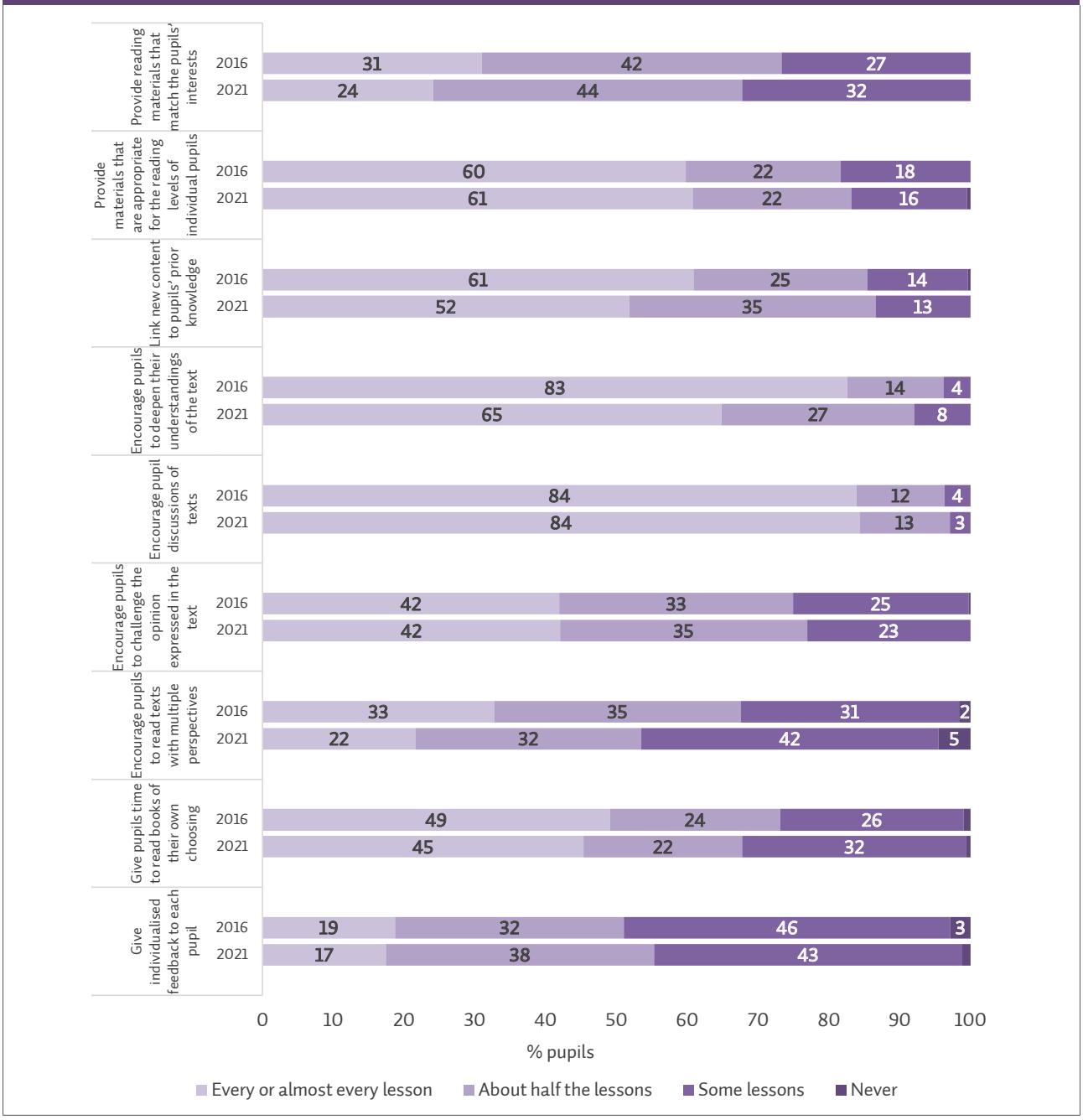
Source: Appendix Table A4.4.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Figure 4.4 presents the percentages of pupils in Ireland by the frequency with which their teachers used certain teaching and learning strategies during reading lessons in 2016 and 2021.[28] The trend was very consistent for three activities: providing materials that are appropriate for the reading levels of individual pupils, encouraging pupil discussions of texts, and encouraging pupils to challenge the opinion expressed in the text. The proportion of pupils whose teachers reported linking new content to pupils' prior knowledge in at least half the lessons was broadly similar across both cycles (85% in 2016 and 87% in 2021), but the proportion whose teachers reported completing this activity in *every or almost every lesson* decreased from 61% in 2016 to 52% in 2021. There was a decrease between 2016 and 2021 in the frequency with which other strategies were used, including providing reading materials that match the pupils' interests, encouraging pupils to deepen their understanding of the text,

28 This question was not administered in 2011, so the trend comparison is between 2016 and 2021 only.

encouraging pupils to read text with multiple perspectives, and giving pupils time to read books of their own choosing.

Figure 4.4: Percentages of pupils in Ireland, by the frequency with which their teachers used certain strategies during reading lessons (2016, 2021)



Source: Appendix Table A4.4.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Wording changed slightly for two items between 2016 and 2021: *Encourage pupils to develop their understandings of the text* changed to *Encourage pupils to deepen their understandings of the text; Use multiple perspectives (among pupils and texts) to enrich understanding* changed to *Encourage pupils to read texts with multiple perspectives.*

Tasks used to help develop comprehension skills

Table 4.4 presents the percentages and mean achievement of pupils in Ireland by the frequency with which their teachers assigned various types of tasks to help them develop comprehension skills. Based on teachers' reports, the tasks which were completed on a daily or near-daily basis by the majority of pupils were locating information within the text (70%), identifying the main ideas of what they have read (69%), explaining or supporting their understanding with

text-based evidence (58%), and making predictions about what will happen next in the text they are reading (56%). Other commonly used tasks were pupils comparing what they have read with experiences they have had, comparing what they have read with other things they have read, and making generalisations and drawing inferences based on what they have read. Tasks including evaluating and critiquing the style or structure of the text, determining the author's perspective or intention, and self-monitoring their reading were reported by teachers to be used more on a weekly or monthly than on a daily basis. Finally, tasks to develop digital comprehension skills were used less frequently than any of the other tasks, with almost one-third and a quarter of pupils, respectively, having teachers who asked them on at least a weekly basis to determine whether a website is useful for a specific purpose and to evaluate the credibility of a website (a new addition in PIRLS 2021), and more than one-third and approximately half of pupils having teachers who *never or almost never* asked them to complete these tasks.

Table 4.4: Percentages and mean achievement of pupils in Ireland, by the frequency with which their teachers assigned certain tasks to help develop comprehension skills (2021)

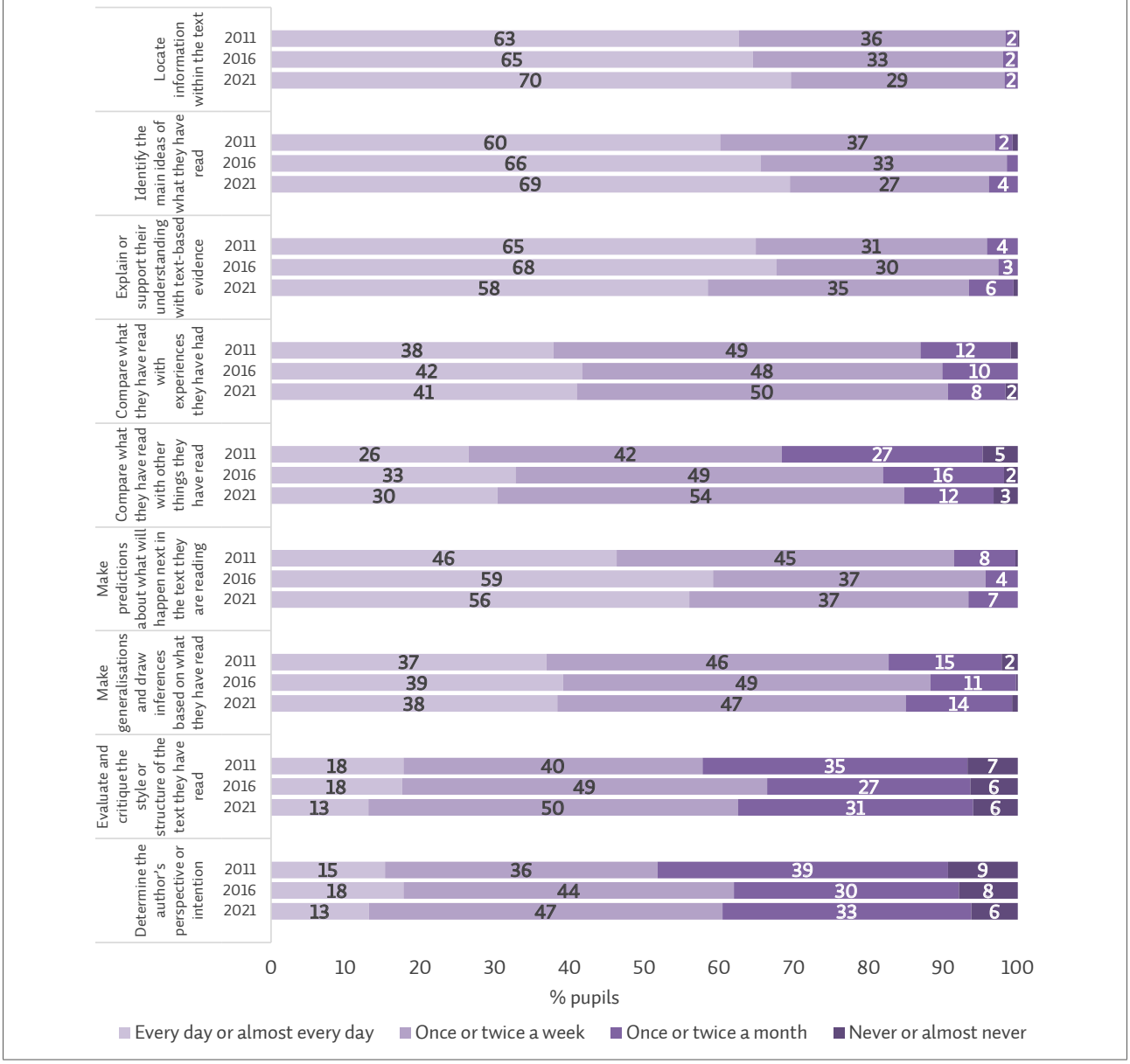
	Every day or almost every day		Once or twice a week		Once or twice a month		Never or almost never	
	%	Mean	%	Mean	%	Mean	%	Mean
Locate information within the text	70	577	29	578	2	~	0	~
Identify the main ideas of what they have read	69	577	27	576	4	587	0	~
Explain or support their understanding with text-based evidence	58	578	35	575	6	579	1	~
Compare what they have read with experiences they have had	41	578	50	576	8	579	2	~
Compare what they have read with other things they have read	30	579	54	575	12	583	3	569
Make predictions about what will happen next in the text they are reading	56	577	37	575	7	588	0	~
Make generalisations and draw inferences based on what they have read	38	583	47	574	14	569	1	~
Evaluate and critique the style or structure of the text they have read	13	574	50	579	31	576	6	572
Determine the author's perspective or intention	13	585	47	575	33	579	6	564
Self-monitor their reading (e.g., recognise when they don't understand)	26	580	43	574	21	578	9	582
Determine whether a website is useful for a specific purpose	2	~	28	568	35	583	35	577
Evaluate the credibility of a website	2	~	21	573	29	576	48	580

Source: Appendix Table A4.5.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Figure 4.5 presents the percentages of pupils in Ireland by the frequency with which their teachers assigned these tasks in the last three cycles of PIRLS. The frequency with which the tasks to help develop comprehension skills were used was generally consistent or increasing between 2011 and 2021. Based on teachers' reports, the proportion of pupils asked on at least a weekly basis to compare what they have read with other things they have read has increased between 2011 and 2021 (68% in 2011, 82% in 2016, and 85% in 2021), while the proportion asked to determine the author's perspective or intention increased between 2011 (52%) and

2016 (62%) and remained generally similar between 2016 and 2021 (60%).

Figure 4.5: Percentages of pupils in Ireland, by the frequency with which their teachers assigned certain tasks to help develop comprehension skills (2011, 2016, 2021)



Source: Appendix Table A4.5.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Wording changed slightly for two items in 2021: *Explain or support their understanding of what they have read* (2011, 2016) changed to *Explain or support their understanding with text-based evidence* (2021); *Describe the style or structure of the text they have read* (2011, 2016) changed to *Evaluate and critique the style or structure of the text they have read* (2021).

Text types used during reading activities

In the teacher questionnaire, one question asked about the types of texts used during reading lessons (Table 4.5). Teachers were asked how often (*every day or almost every day, once or twice a week, once or twice a month,* or *never or almost never*) pupils read various types of text (in print or digitally). The options were split into two categories: literary reading materials and informational reading materials. Literary reading materials included: *short stories (e.g., fables, fairytales, action stories, science fiction, detective stories)*, *longer fiction books with chapters*, *plays*, and *poems/poetry* (the latter being a new addition in PIRLS 2021). Informational reading materials included: *non-fiction subject area books or textbooks*, *longer non-fiction books with chapters*, *non-fiction articles that describe and explain about things, people, events or how things*

work (e.g., newspaper articles, brochures), and *non-continuous texts (e.g., diagrams, maps, illustrations, photographs, tables)*.

In Ireland, teachers gave pupils literary reading materials more frequently than informational reading materials in reading lessons. Among the literary reading materials, one-third of pupils had teachers who used short stories (33%) and/or longer fiction books with chapters (34%) *every day or almost every day*. Short stories were used in reading lessons at least weekly by teachers of almost 90% of pupils. Plays were used much less frequently as two-third of pupils (66%) had teachers who *never or almost never* used such texts in reading lessons. The new addition in this category in PIRLS 2021, poems/poetry, was used by teachers of almost all pupils (99%) on at least a monthly basis. Over one-third of pupils (38%) had teachers who used poems/poetry *once or twice a week*, while a very small proportion (2%) had teachers who reported using them *every day or almost every day*.

Among the informational reading materials, non-fiction subject area books or textbooks were most likely to be used daily or near-daily (37%), followed by non-continuous texts (12%), non-fiction articles that describe and explain about things, people, events, or how things work (8%), and longer non-fiction books with chapters (7%). Over one-fifth of pupils (22%) had teachers who *never or almost never* used longer non-fiction books with chapters.

Table 4.5: Percentages and mean achievement of pupils in Ireland, by the frequency with which their teachers used various text types in reading lessons (2021)

		Every day or almost every day		Once or twice a week		Once or twice a month		Never or almost never	
		%	Mean	%	Mean	%	Mean	%	Mean
Literary	Short stories (e.g., fables, fairy tales, action stories, science fiction, detective stories)	33	584	54	576	10	564	2	~
	Longer fiction books with chapters	34	581	35	572	27	579	4	575
	Plays	0	~	4	575	30	577	66	577
	Poems/poetry	2	~	38	580	60	575	1	~
Informational	Non-fiction subject area books or textbooks	37	579	47	575	14	580	2	~
	Longer non-fiction books with chapters	7	587	32	578	38	573	22	579
	Non-fiction articles that describe and explain about things, people, events, or how things work (e.g., newspaper articles, brochures)	8	590	39	578	44	574	9	575
	Non-continuous texts (e.g., diagrams, maps, illustrations, photographs, tables)	12	586	45	581	37	568	5	585

Source: Appendix Table A4.6.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Teacher responses about three text types in the literary reading materials category and three text types in the informational reading materials category were collected across the last three cycles of PIRLS. Figure 4.6 presents the percentages of pupils in Ireland by the frequency with which their teachers used these various text types in reading lessons in 2011, 2016, and 2021. Overall, the proportions were generally similar across cycles. Short stories, longer fiction books with chapters, and non-fiction subject area books or textbooks were used most commonly across 2011, 2016, and 2021. Plays were used least commonly in each of these years. The use of non-fiction articles on at least a weekly basis decreased statistically significantly between 2011 and 2016, but this change has reversed as the use increased statistically significantly between

2016 and 2021, with proportions in 2021 similar to those reported in 2011.

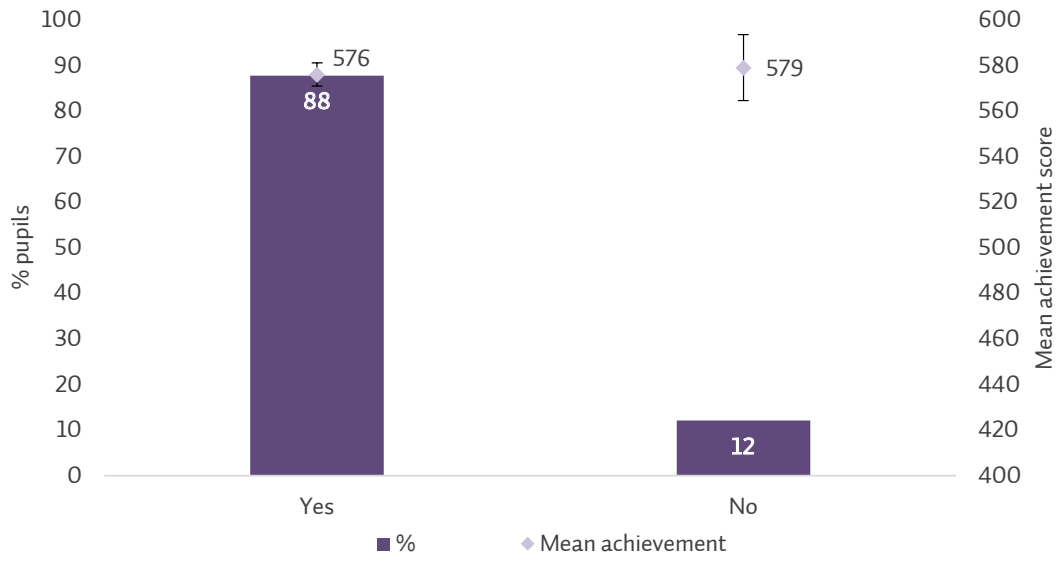
Figure 4.6: Percentages of pupils in Ireland, by the frequency with which their teachers used various text types in reading lessons (2011, 2016, 2021)

Source: Appendix Table A4.6.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Wording for the last category has been shortened for the purposes of the graph.

Availability of library or reading corner

The teacher questionnaire included a question about whether classrooms had a library or reading corner. Figure 4.7 shows the percentages and mean achievement of pupils by whether their teachers reported having a library or reading corner available in their classroom. Based on teachers' reports, the majority of pupils (88%) had a library or reading corner available in their classrooms. Mean PIRLS scores were not statistically significantly different based on whether or not pupils had a library or reading corner available in their classrooms. In 2011 and 2016, proportions of pupils who were taught by teachers whose classrooms had a library or reading corner, 98% and 96%, respectively, were statistically significantly higher than the proportion reported in 2021, but this may be due, at least in part, to COVID-19 restrictions on library usage at the time of PIRLS testing.

Figure 4.7: Percentages and mean achievement of pupils in Ireland by availability of a library or reading corner in classroom, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.7.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Among those pupils who had a library or reading corner available in their classrooms, 59% were reported by their teachers to use the library or reading corner during class time *every day or almost every day*, while a further 38% were reported using it *once or twice a week* (see Appendix Table A4.7). Again, among those pupils who had a library or reading corner available in their classrooms, two-fifths (41%) had teachers who reported having *more than 100* books in their classroom library, while more than one-third (35%) had teachers who reported having *51-100* books in their classroom library.

Use of digital devices during reading lessons

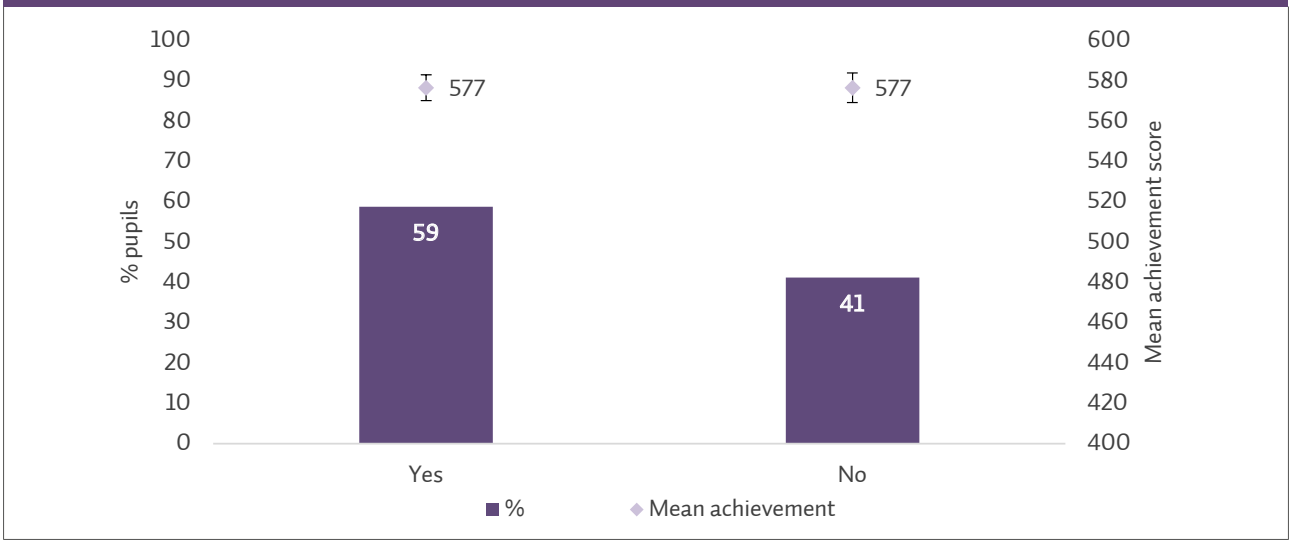
Teachers were asked questions relating to the use of digital devices during reading instruction. Firstly, teachers were asked whether pupils in their class had digital devices (e.g., desktop computers, laptops, or tablets) available to use during reading lessons. Subsequent questions were asked to those who reported having digital devices available to use during reading lessons including the level of access to these devices, the frequency of use, and the frequency with which devices were used for different activities.

Figure 4.8 presents the percentages and mean achievement of pupils in Ireland by whether they had access to digital devices during reading instruction. Almost three-fifths of pupils had digital devices which were available to use during reading lessons, while their availability was not statistically significantly associated with reading achievement. One-fifth of pupils (21%), who had a digital device available to use during reading lessons, were provided with a digital device by their school. More than half of pupils who had digital devices available to use during reading lessons (59%) had devices that pupils could share, while almost all pupils who had digital devices available during reading lessons (88%) had devices that the class could use sometimes.

When asked about the frequency with which pupils used these digital devices when doing reading activities with the whole class, the most common responses were *at least once a week* (35% of pupils who had devices available) or *once or twice a month* (37% of pupils who had devices available). More than half of pupils (53%) who had devices available during reading lessons used these devices to look up facts and definitions on at least a weekly basis, while over

one-third of pupils (36%) often used these devices to do a research project on a particular topic or problem. Lower proportions of pupils who had devices used them to read digital texts (27%), write stories or other texts (22%), and create a presentation or communication (17%) on at least a weekly basis.

Figure 4.8: Percentages and mean achievement of pupils in Ireland by availability of digital devices during reading instruction, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.8.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

It has previously been reported that, in 2016, the proportion of pupils who had access to digital devices during reading lessons (39%) decreased statistically significantly from 2011 (56%) (e.g., Delaney et al., 2022). This trend has reversed in 2021, but the proportion with access to devices (59%) still remains similar to the proportions reported 10 years ago (in 2011).

Post-reading activities

Teachers were asked to indicate the frequency (*every day or almost every day, once or twice a week, once or twice a month*, or *never or almost never*) with which they asked pupils to complete different activities after they had read something. Post-reading activities provide teachers with the opportunity to assess the learning and understanding of pupils and to allow pupils to further synthesise their learning (Department of Education and Skills, 2011b). Table 4.6 shows the percentages and mean achievement of pupils in Ireland by the frequency with which their teachers assigned post-reading activities in 2021. Answering oral questions or orally summarising what they had read was the activity most likely to be completed *every day or almost every day* (78%). Approximately two-fifths of pupils were taught by teachers who reported that they asked pupils daily or near-daily to write something about or in response to what they had read (40%) and talk with each other about what they had read (40%). A small proportion of pupils had teachers who reported assigning a written quiz or test about what they had read on a daily or near-daily basis (4%). Creating a multi-modal response was the activity used least frequently. Almost half of pupils were taught by teachers who reported *never or almost never* assigning this activity.

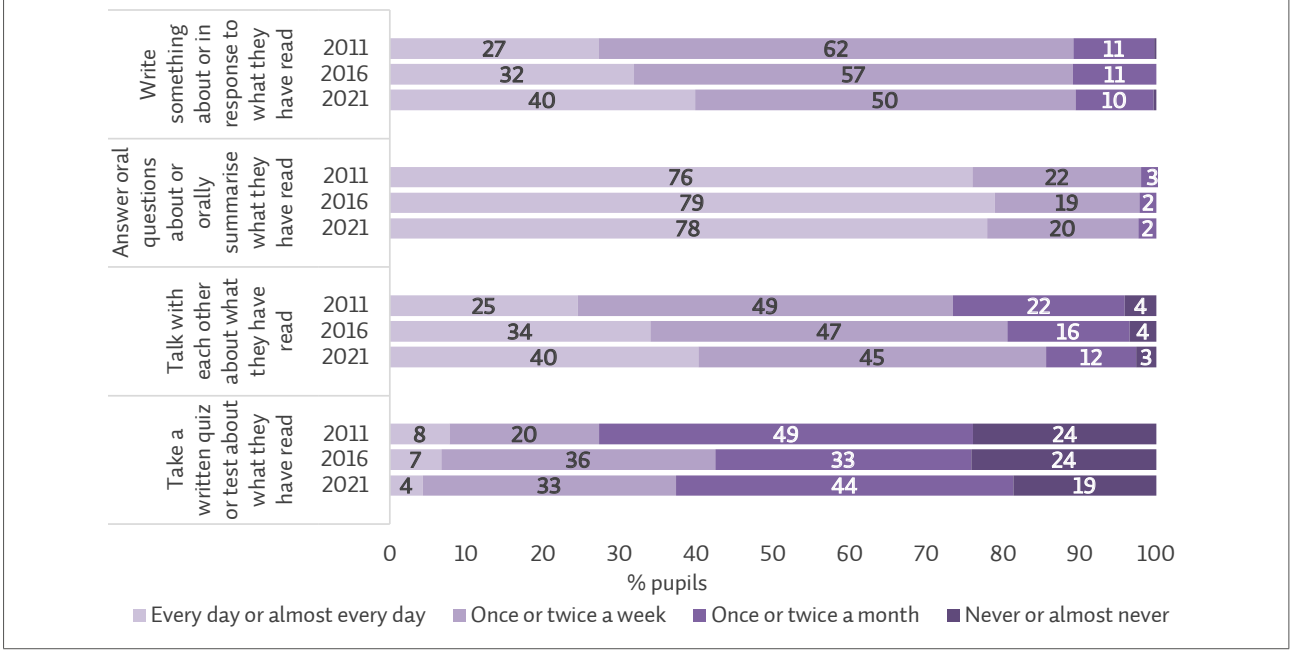
Table 4.6: Percentages and mean achievement of pupils in Ireland, by the frequency with which their teachers assigned certain post-reading activities (2021)

	Every day or almost every day		Once or twice a week		Once or twice a month		Never or almost never	
	%	Mean	%	Mean	%	Mean	%	Mean
Write something about or in response to what they have read	40	577	50	574	10	588	0	~
Answer oral questions about or orally summarise what they have read	78	576	20	581	2	~	0	~
Talk with each other about what they have read	40	578	45	574	12	579	3	596
Take a written quiz or test about what they have read	4	577	33	576	44	576	19	579
Create a multi-modal response (e.g., image, audio, text, video, performance)	0	~	13	578	39	579	48	574

Source: Appendix Table A4.9.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Figure 4.9 presents the percentages of pupils in Ireland by the frequency with which their teachers assigned post-reading activities, as reported in the last three cycles of PIRLS (2011, 2016, and 2021). Proportions of pupils being asked to *answer oral questions or orally summarise what they have read* remained generally stable across the PIRLS cycles. There has been a steady increase across cycles in the proportion of pupils whose teacher assigned post-reading activities of talking with each other about what they have read (25% in 2011, 34% in 2016, and 40% in 2021) and writing something about or in response to what they have read (27% in 2011, 32% in 2016, and 40% in 2021) on a daily or near-daily basis.

Figure 4.9: Percentages of pupils in Ireland, by the frequency with which their teachers assigned certain post-reading activities (2011, 2016, 2021)



Source: Appendix Table A4.9.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

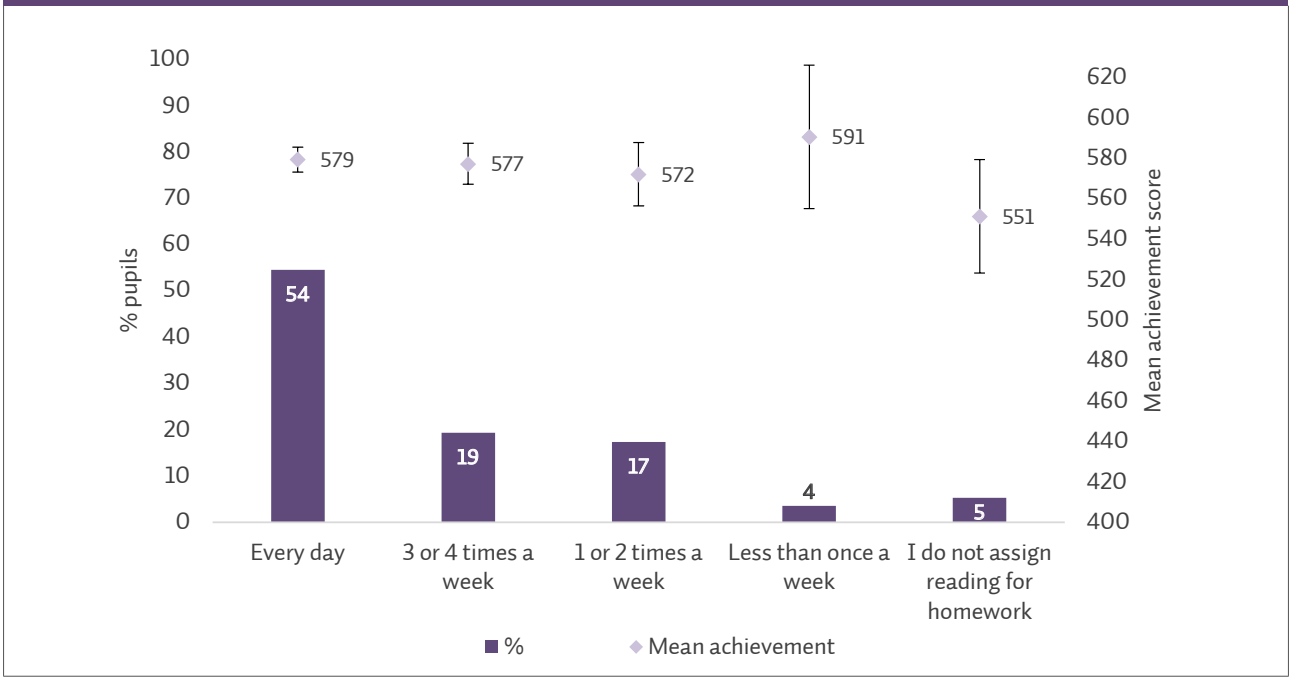
Reading homework

Teachers were asked three questions relating to reading homework. Firstly, they were asked to indicate how often they assigned reading as part of homework, choosing from the following options: *I do not assign reading homework, less than once a week, 1 or 2 times a week, 3 or 4 times a week*, or *every day*. Secondly, they were asked to indicate the time they expected their pupils to spend on homework involving reading (*15 minutes or less, 16-30 minutes, 31-60 minutes,* or *more than 60 minutes*). Finally, teachers were asked to indicate how often they completed certain activities with the reading homework assigned to the class. These included correcting assignments and giving feedback to pupils, discussing the homework in class, and monitoring whether or not the homework was completed.

Figure 4.10 presents the percentages and mean achievement of pupils in Ireland by the frequency with which their teachers assigned reading homework in 2021. More than half of pupils (54%) had teachers who assigned reading homework *every day*. Almost one-fifth of pupils, respectively, had teachers who assigned reading homework *3 or 4 times a week* (19%) and *1 or 2 times a week* (17%). Only 5% of pupils had teachers who did not assign reading for homework. The mean PIRLS achievement scores of pupils in other categories were not statistically significantly different from that of pupils in the *every day* category, which was used as a reference.

The proportion of pupils whose teachers assigned reading homework *every day* has decreased from 2016 (69%), which more than reverses the trend seen between 2011 (60%) and 2016. Alongside the decrease in the percentage of pupils receiving homework daily, there was an increase in the proportion of pupils whose teachers did not assign reading for homework (1% in 2016 to 5% in 2021) and those who assigned it less than once a week (2% in 2016 to 4% in 2021).

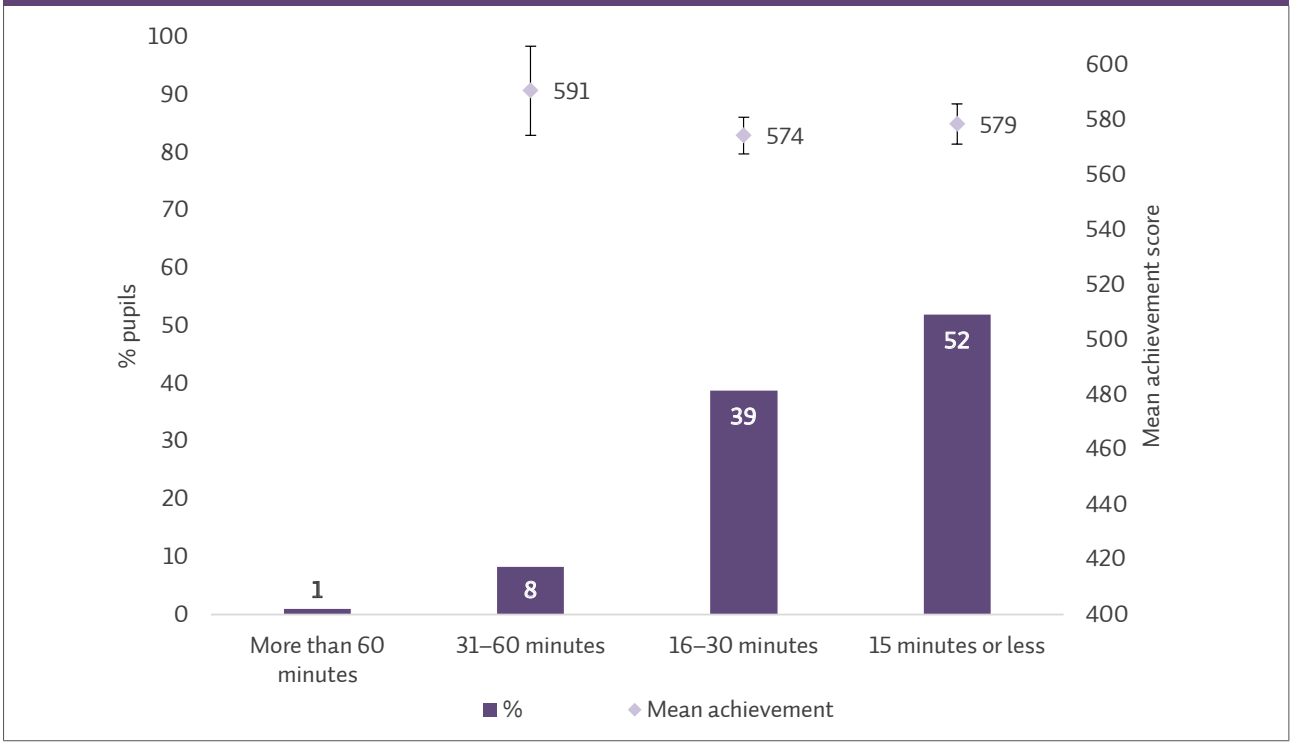
Figure 4.10: Percentages and mean achievement of pupils in Ireland by frequency with which teachers assigned reading homework, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.10.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Among those pupils that at least sometimes received reading homework, more than half (52%) were expected by teachers to spend *15 minutes or less* on this homework each time it was assigned, while most of the remainder (39%) were expected to spend *16-30 minutes* on it (Figure 4.11).

Figure 4.11: Percentages and mean achievement of those pupils in Ireland who at least sometimes received reading homework by the time they were expected to spend on reading homework, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.10.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. The percentages in this figure are proportions of those pupils who at least sometimes received reading homework (95% of pupils, as seen in Figure 4.10). Mean achievement is not reported for the *more than 60 minutes* category due to insufficient data.

Based on teachers' reports (Table 4.7), among those pupils who received reading homework, its completion was *always or almost always* monitored for the majority (91%). Teachers of high proportions of pupils who received reading homework also reported *always or almost always* discussing homework in class (75%) and correcting assignments and giving feedback to pupils (72%).

Table 4.7: Percentages and mean achievement of pupils in Ireland, by the frequency with which teachers completed certain activities related to reading homework (2021)

	Always or almost always		Sometimes		Never or almost never	
	%	Mean	%	Mean	%	Mean
Correct assignments and give feedback to pupils	72	579	23	577	5	579
Discuss the homework in class	75	576	22	584	3	588
Monitor whether or not the homework was completed	91	579	7	559	2	~

Source: Appendix Table A4.10.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Assessment strategies in reading

PIRLS 2021 redeveloped a question in the teacher questionnaire relating to assessment strategies in reading. Teachers were asked to indicate the importance they place (*a lot, some*, or *none*) on the following assessment strategies in reading: *observing pupils as they work, asking pupils to answer questions during class, short, regular written assessments, longer tests,* or *long-term projects*.

Table 4.8 presents the percentages and mean achievement of pupils in Ireland by the importance their teachers placed on various assessment strategies in reading. Very high proportions of pupils had teachers who placed *a lot* of importance on observing pupils as they work (89%) and asking pupils to answer questions during class (89%), while a majority (62%) had teachers who placed *a lot* of importance on short, regular written assessments. Teachers of smaller proportions of pupils reported placing *a lot* of importance on longer tests (such as standardised tests) and long-term projects. The mean achievement scores of pupils did not differ greatly based on the importance placed by their teachers on the various assessment strategies.

Table 4.8: Percentages and mean achievement of pupils in Ireland, by the importance teachers placed on various assessment strategies in reading (2021)

	A lot		Some		None	
	%	Mean	%	Mean	%	Mean
Observing pupils as they work	89	578	11	567	0	~
Asking pupils to answer questions during class	89	576	11	575	0	~
Short, regular written assessments (paper or digital)	62	578	36	574	2	~
Longer tests (e.g., standardised tests or unit tests)	19	582	74	575	7	575
Long-term projects (e.g., reading logs)	24	577	65	577	11	573

Source: Appendix Table A4.11.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Challenges in reading instruction

Teachers can be faced with challenges in reading instruction which can impact the quality of teaching and learning experienced by pupils. This section draws on reports of such challenges from both the principals of selected schools and participating pupils. Specifically, it examines the frequency of disorderly behaviour during reading lessons and the extent to which instruction was affected by a shortage in reading resources.

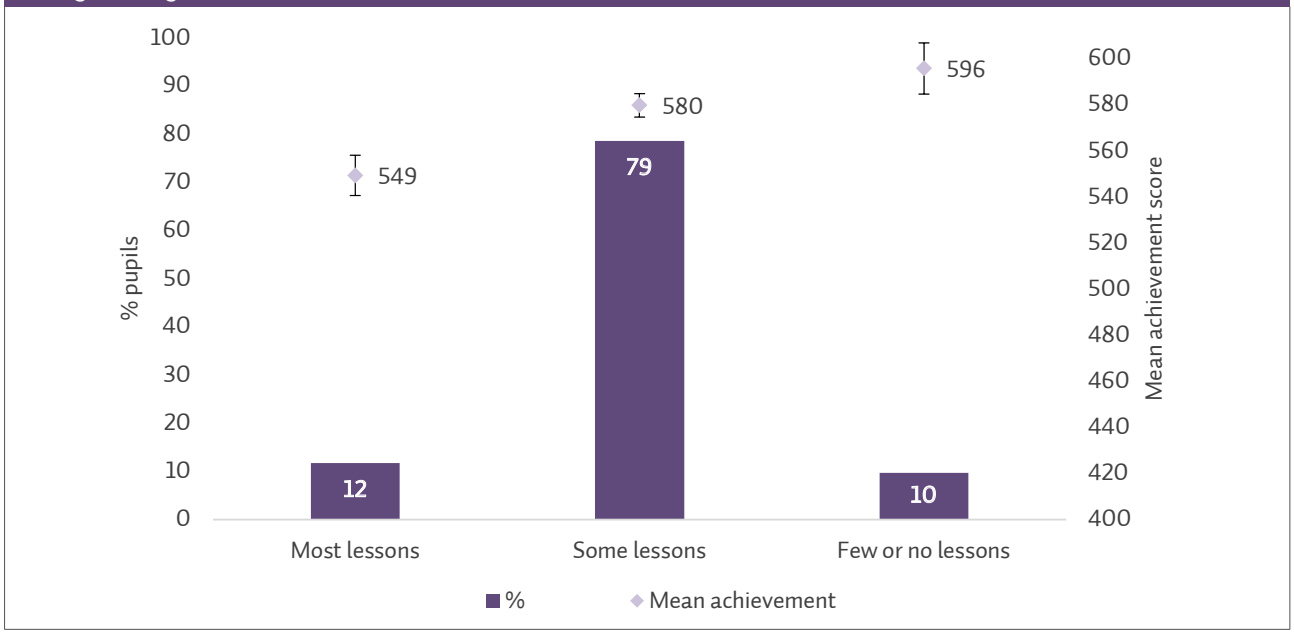
Disorderly behaviour during reading lessons

The frequency of disorderly behaviour during reading lessons, as reported by pupils, was captured through responses to five items in the pupil questionnaire: *Pupils don't listen to what the teacher says; There is too much noise for pupils to work well; My teacher has to wait a long time for pupils to be quiet; Pupils interrupt the teacher; My teacher has to keep telling us to follow the classroom rules.* Pupils were asked to indicate how frequently each of these occurred (*every or almost every lesson, about half the lessons, some lessons*, or *never)*. Responses were used to create the PIRLS *Disorderly Behaviour During Reading Lessons* scale, within which the overall frequency of disorderly behaviour was categorised as *most lessons, some lessons*, or *few or no lessons*.

Figure 4.12 shows the percentages and mean achievement of pupils in Ireland in each category

of the PIRLS *Disorderly Behaviour During Reading Lessons* scale. Almost four-fifths of pupils (79%) indicated that disorderly behaviour featured in *some lessons*, while 12% indicated that it featured in *most lessons*, and 10% indicated that it featured in *few or no lessons*. Pupils who indicated that *most lessons* included disorderly behaviour achieved a mean PIRLS score of 549, which was statistically significantly lower than that of pupils in the *some lessons* (580) and *few or no lessons* (596) categories.

Figure 4.12: Percentages and mean achievement of pupils in Ireland by the frequency of disorderly behaviour during reading lessons, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.12.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 4.9 presents the percentages and mean achievement of pupils in Ireland by component items of the PIRLS *Disorderly Behaviour During Reading Lessons* scale. With the exception of the statement *my teacher has to keep telling us to follow the classroom rules,* the proportions across each of the statements are broadly similar with between approximately one-fifth and one-quarter reporting that the issues referenced occurred in *every or almost every lesson* or in *about half the lessons*, and between approximately two-fifths and half reporting that they occurred in *some lessons.* Pupils were less likely to report frequent occurrence for the statement *my teacher has to keep telling us to follow the classroom rules,* with just under one-third of pupils (31%) selecting *never*.

Table 4.9: Percentages and mean reading achievement of pupils in Ireland, by component items of the *Disorderly Behaviour During Reading Lessons* scale (2021)

	Every or almost every lesson		About half the lessons		Some lessons		Never	
	%	Mean	%	Mean	%	Mean	%	Mean
Pupils don't listen to what the teacher says	19	563	23	573	49	587	9	570
There is too much noise for pupils to work well	19	547	25	577	42	590	15	583
My teacher has to wait a long time for pupils to be quiet	24	556	19	579	42	586	16	588
Pupils interrupt the teacher	24	560	19	568	40	587	18	592
My teacher has to keep telling us to follow the classroom rules	18	545	14	571	37	589	31	585

Source: Appendix Table A4.13.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

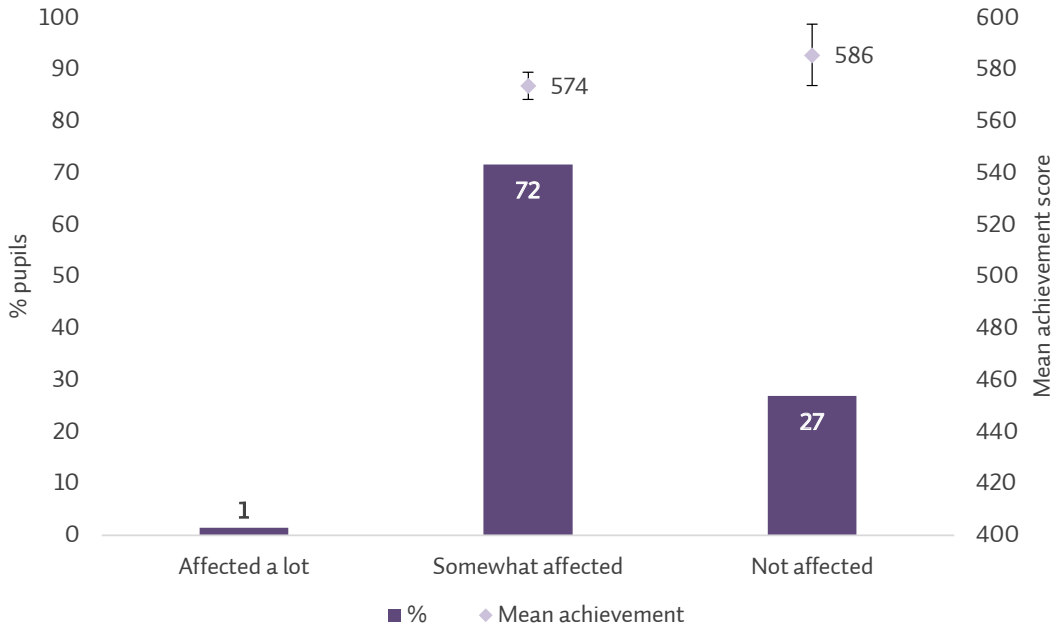
Instruction affected by reading resource shortages

The extent to which instruction was affected by shortages of reading resources was captured through the school questionnaire. School principals were asked to indicate how much (*a lot, some, a little*, or *not at all*) their school's capacity to provide instruction was affected by a shortage or inadequacy of resources in two areas: general school resources and resources for reading instruction. General school resources included *instructional materials*, *supplies*, *school buildings and grounds*, *heating/cooling and lighting systems*, *instructional space*, *technologically competent staff*, *technology and media resources to support teaching*, *technology and media resources to support pupil learning and expression*, *resources for pupils with learning disabilities*, and *internet connection*. Resources for reading instruction included *teachers with a specialisation in reading*, *computer software/applications for reading instruction*, *library resources*, and *instructional materials for reading*. School principals' responses (about the shortage or inadequacy of both general and reading-specific resources) were used to create the PIRLS *Instruction Affected by Reading Resource Shortages* scale, on the basis of which pupils were grouped into three categories: *affected a lot, somewhat affected,* or *not affected*.

Figure 4.13 shows the percentages and mean achievement of pupils in Ireland in each category of the PIRLS *Instruction Affected by Reading Resource Shortages* scale. Based on school principals' reports, the majority of pupils (72%) were in schools where they were *somewhat affected*, while one-quarter (27%) were in schools where they were *not affected*. A very small proportion of pupils (1%) were in schools which were *affected a lot*. The mean PIRLS score of the pupils in the *somewhat affected* category (574) did not differ statistically significantly from the mean PIRLS score of those in the *not affected* category (586).

Looking at the individual component items which contribute to the scale, the proportion of pupils whose school principals reported that their schools were affected *a lot* by a shortage of each resource type in 2021 was 10% or lower, with the exception of internet connection (13%) and school buildings and grounds (12%) (see Appendix Table A4.15).

Figure 4.13: Percentages and mean achievement of pupils in Ireland by the extent to which instruction was affected by reading resource shortages, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.14.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Mean achievement is not reported for the *affected a lot* category due to insufficient data.

Both PIRLS 2011 and PIRLS 2016 included a PIRLS *Instruction Affected by Reading Resource Shortages* scale; however, some of the individual items have changed across the cycles. Despite this, the scale has been created such that comparisons are possible across 2011, 2016, and 2021 (additional information about the scale components across cycles can be found in Appendix Table A4.15). The proportion of pupils in each of the categories has generally been similar between 2011 and 2021 (Table 4.10). There was a small increase in the *not affected* category between 2011 and 2016, but this has decreased in 2021, in line with the proportions reported in 2011. Similar to 2021, the difference between the mean PIRLS scores of pupils in the *somewhat affected* and *not affected* categories was not statistically significant in 2011 or 2016.

Table 4.10: Percentages and mean achievement of pupils in Ireland, by the extent to which instruction was affected by reading resource shortages (2011, 2016, 2021)

	Affected a lot		Somewhat affected		Not affected	
	%	Mean	%	Mean	%	Mean
2011	1	~	71	550	27	557
2016	0	~	66	565	34	570
2021	1	~	71	550	27	557

Source: Appendix Table A4.14.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
~ Mean achievement is not reported due to insufficient data.

Teacher characteristics

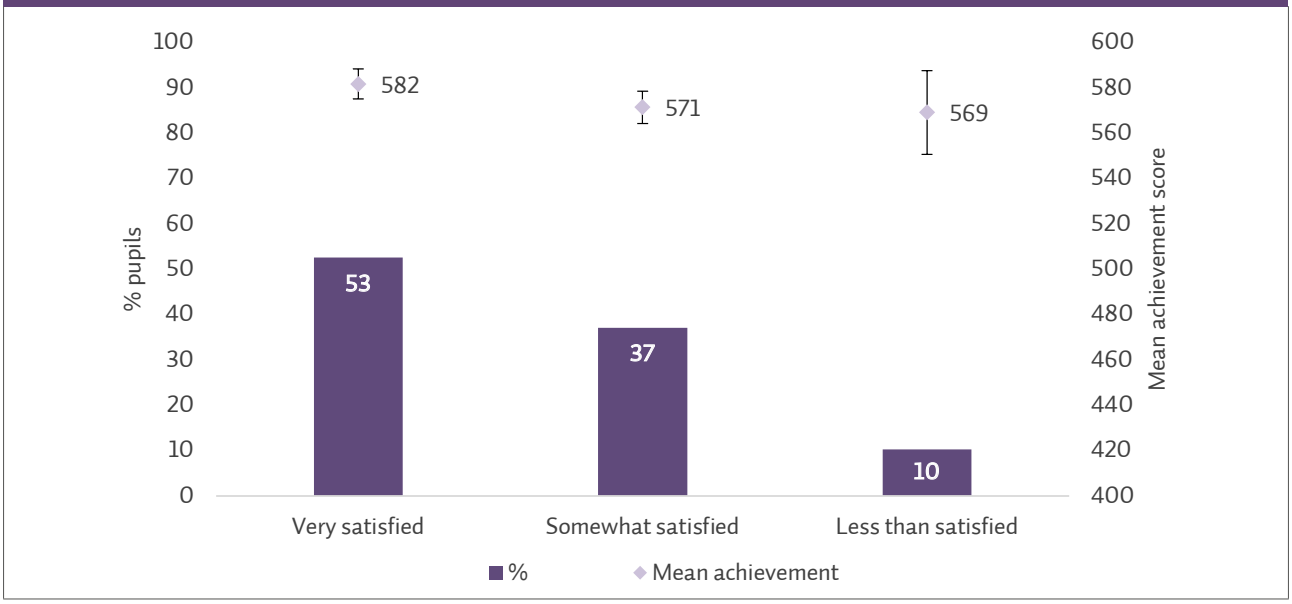
Some questions in the teacher questionnaire related to teacher characteristics and attitudes. This section explores teacher job satisfaction, participation in professional development relating to reading, and frequency with which teachers read for enjoyment.

Job satisfaction

Teacher job satisfaction was captured through six items in the teacher questionnaire: *I am content with my profession as a teacher; I find my work full of meaning and purpose; I am enthusiastic about my job; My work inspires me; I am proud of the work I do; I feel appreciated as a teacher* (a new addition for PIRLS 2021). Teachers were asked to indicate the frequency with which they felt that way about being a teacher for each of these six statements and their responses were used to create the PIRLS *Teacher Job Satisfaction* scale. The PIRLS 2021 national report included a breakdown of teachers' responses to each item (see pages 78-79 in Delaney et al., 2023). Here, the composite PIRLS *Teacher Job Satisfaction* scale is reported, which includes three categories: *very satisfied, somewhat satisfied*, and *less than satisfied*.

Figure 4.14 shows the percentages and mean achievement of pupils in Ireland by the extent to which their teachers were satisfied with their job. Teachers of over half of pupils (53%) reported being *very satisfied* with their job, 37% being *somewhat satisfied,* and 10% being *less than satisfied*. The mean PIRLS score of pupils whose teachers were *very satisfied* did not statistically significantly differ from the scores of pupils in the other two categories: *somewhat satisfied* and *less than satisfied*.

Figure 4.14: Percentages and mean achievement of pupils in Ireland by teacher job satisfaction, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.16.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and PIRLS 2016 included a *Teacher Job Satisfaction* scale, but the scale was created such that the PIRLS 2021 scale is not comparable with the 2011 scale. The proportion of pupils whose teachers were *very satisfied* has decreased from 60% in 2016 to 53% in 2021, with this difference accounted for by an increase in the *less than satisfied* category from 4% in 2016 to 10% in 2021. Looking at the individual components which are used to create this scale (see Appendix Table A4.17), decreases were observed in the proportion of pupils whose teachers felt *very often* that they were enthusiastic about their job (64% in 2016 and 56% in 2021), that their work inspired them (54% in 2016 and 46% in 2021), and that there are proud of the work they do (62% in 2016 and 56% in 2021). Most of the other items remained generally stable between 2016 and 2021, despite the specific challenges associated with teaching in a COVID-19 context.

Table 4.11: Percentages and mean achievement of pupils in Ireland, by teacher job satisfaction (2016, 2021)

	Very satisfied		Somewhat satisfied		Less than satisfied	
	%	Mean	%	Mean	%	Mean
2016	60	570	36	561	4	561
2021	53	582	37	571	10	569

Source: Appendix Table A4.16.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Participation in professional development in reading

As part of the teacher questionnaire, teachers were asked two questions about professional development (e.g., workshops, seminars, lesson studies) on various aspects of reading. These aspects included: *Teaching reading comprehension skills or strategies; Integrating literacies across the curriculum; Addressing pupils' language needs when teaching reading; Integrating technology into reading instruction; Instruction related to digital literacies; Addressing differentiation of instruction based on pupils' needs and interests; Assessing pupils' reading*. Firstly, teachers were asked to indicate whether they had completed formal professional development in these areas in the two years preceding PIRLS 2021. Secondly, they were asked how they would prioritise their need for future professional development in these areas.

Table 4.12 presents the percentages and mean reading achievement of pupils in Ireland by whether their teachers completed formal professional development on various aspects of reading. Based on teachers' reports, half of pupils had teachers who completed formal professional development relating to teaching reading comprehension skills or strategies. Over two-fifths of pupils had teachers who completed formal professional development relating to addressing differentiation of instruction based on pupils' needs and interests (45%), integrating literacies across the curriculum (43%), integrating technology into reading instruction (42%), and instruction relating to digital literacies (42%). Slightly lower proportions of pupils were taught by teachers who completed formal professional development relating to assessing pupils' reading (33%) and addressing pupils' language needs when teaching reading (28%). The mean scores of pupils whose teachers completed formal professional development in the area of integrating literacies across the curriculum and addressing pupils' language needs when teaching reading were statistically significantly higher than those of their peers whose teachers did not complete formal professional development in these areas in the two years preceding PIRLS 2021.

Table 4.12: Percentages and mean reading achievement of pupils in Ireland, by whether teachers completed formal professional development on various aspects of reading (2021)

	Yes		No	
	%	Mean	%	Mean
Teaching reading comprehension skills or strategies	50	574	50	579
Integrating literacies across the curriculum	43	570	57	582
Addressing pupils' language needs when teaching reading	28	568	72	579
Integrating technology into reading instruction	42	574	58	578
Instruction related to digital literacies	42	576	58	577
Addressing differentiation of instruction based on pupils' needs and interests	45	579	55	575
Assessing pupils' reading	33	575	67	578

Source: Appendix Table A4.18.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 4.13 presents the percentages and mean achievement of pupils in Ireland by their teachers' level of need for future professional development on various aspects of reading. When asked to prioritise their need for future professional development on various aspects of reading, the teachers of most pupils reported their need as *high* or *medium*. Approximately two-fifths of pupils had teachers who prioritised their need as *high* for the areas of assessing pupils' reading (43%), addressing pupils' language needs when teaching reading (41%), and addressing differentiation of instruction based on pupils' needs and interests (40%). Between approximately one-quarter and one-third of pupils were taught by teachers who prioritised their need as *high* for each other area of professional development relating to reading.

Table 4.13: Percentages and mean achievement of pupils in Ireland, by their teachers' level of need for future professional development on various aspects of reading (2021)

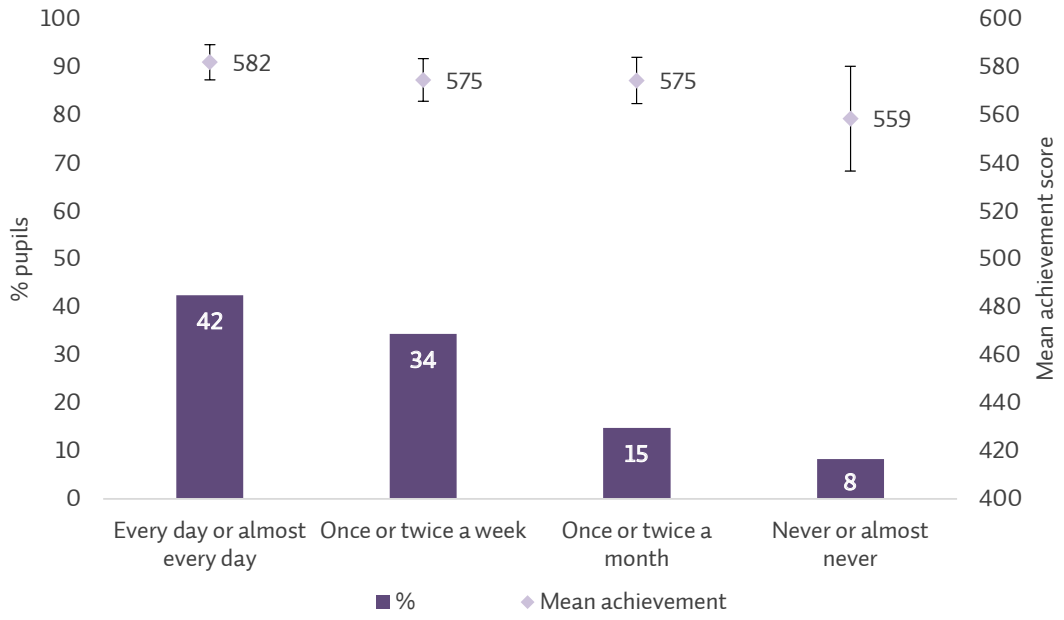
	High		Medium		Low	
	%	Mean	%	Mean	%	Mean
Teaching reading comprehension skills or strategies	28	579	57	576	14	576
Integrating literacies across the curriculum	24	569	57	581	19	575
Addressing pupils' language needs when teaching reading	41	584	52	572	8	577
Integrating technology into reading instruction	35	572	48	580	18	579
Instruction related to digital literacies	33	574	50	577	16	578
Addressing differentiation of instruction based on pupils' needs and interests	40	579	48	576	12	569
Assessing pupils' reading	43	582	48	571	9	580

Source: Appendix Table A4.19.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Read for enjoyment

The teacher questionnaire asked teachers to indicate how often they read for enjoyment. Teachers were presented with four response options: *every day or almost every day, once or twice a week, once or twice a month*, or *never or almost never*. Figure 4.15 shows the percentages and mean achievement of pupils in Ireland by the frequency with which their teachers read for enjoyment. Teachers of over two-fifths of pupils (42%) read for enjoyment on a daily or near-daily basis, while over one-third read for enjoyment *once or twice a week*. A small proportion, less than one-tenth (8%) of pupils, had teachers who *never or almost never* read for enjoyment. None of the mean PIRLS scores were statistically significantly different from that of pupils in the *every day or almost every day* category, which was used as a reference.

Figure 4.15: Percentages and mean achievement of pupils in Ireland by the frequency with which teachers read for enjoyment, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A4.20.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Chapter summary

This chapter focused on the relationships of selected class and teacher characteristics with the overall reading achievement of pupils in Ireland in PIRLS 2021. Ireland's data from PIRLS 2011 and 2016 were also compared to those from 2021, where appropriate. As noted in Chapter 1, PIRLS 2021 data must be interpreted in the context of important caveats, which are particularly relevant for countries that tested at Start G5 (including Ireland).

Teachers reported that more than half of pupils received between five and seven hours of English language instruction per week. The mean PIRLS scores of these pupils were not statistically significantly different from those of pupils in the highest category of *9hrs or more*, which was used as a reference. The proportions reported in PIRLS 2016 were broadly similar except for the *9hrs or more* category, in which a decrease of five percentage points was observed.

Teaching reading as a whole-class activity was the most frequently used approach and this has consistently been the most frequently used approach across PIRLS cycles. All other approaches, including same-ability grouping, mixed-ability grouping, individualised instruction for reading, and pupils working independently on an assigned plan or goal, were used less frequently. The frequency of use of mixed-ability grouping and individualised instruction for reading has increased steadily over time (between 2011 and 2021).

The most common activities used during reading lessons on a daily or almost daily basis were reading aloud to pupils, asking pupils to read aloud, and asking pupils to read silently on their own, and this has been consistent across the three PIRLS cycles. Teaching digital literacy skills, which was a new addition in the PIRLS 2021 questionnaire, was completed much less frequently. The proportion of pupils whose teachers taught skimming or scanning strategies more frequently increased across cycles.

Most pupils in Ireland had teachers who reported encouraging pupil discussions of texts

frequently. The trend between 2016 and 2021 was consistent for the frequency with which teachers used the strategies of providing materials that are appropriate for the reading levels of individual pupils, encouraging pupil discussions of texts, and encouraging pupils to challenge the opinion expressed in the text.

The majority of pupils had teachers who used the following tasks to help develop comprehension skills on a daily or almost daily basis: *locate information within the text*; *identify the main ideas of what they have read*; *explain or support their understanding with text-based evidence*, and *make predictions about what will happen next in the text they are reading*. Activities relating to digital comprehension skills, such as determining whether a website is useful for a specific purpose and evaluating the credibility of a website, were used much less frequently.

Consistently over the past three cycles of PIRLS, teachers were somewhat more likely to use literary reading materials than informational reading materials. Among the literary reading materials, short stories were the most commonly used text type, while among the informational reading materials, non-fiction subject area books or textbooks were the most common. Poems/poetry, a new addition in the PIRLS 2021 questionnaire, was used by almost all pupils on at least a monthly basis.

Based on reports from teachers, the majority of pupils had a library or reading corner available in their classrooms, but the proportion has decreased statistically significantly from the previous cycles of PIRLS. PIRLS reading achievement did not differ statistically significantly depending on whether pupils had a library or reading corner available in their classrooms. Of those pupils who had a library or reading corner in their classrooms, the majority were reported to use it during class time on a daily or almost daily basis.

Almost three-fifths of pupils in Ireland had, at least sometimes, digital devices available during reading lessons. This proportion decreased statistically significantly between 2011 and 2016, with the 2021 proportion similar to that reported in 2011. The mean achievement did not differ statistically significantly depending on whether or not pupils had digital devices available during reading lessons.

The post-reading activity of answering oral questions about or orally summarising what has been read was the most frequently used activity on a daily or near-daily basis. Almost all pupils were taught by teachers who asked them to *write something about or in response to what they have read* and to *talk with each other about what they have read* on at least a weekly basis. Taking a written quiz or test and creating a multi-modal response were used less often.

The majority of pupils (54%) received reading homework *every day*, while a very small proportion of pupils (5%) did not receive reading for homework. The mean PIRLS score for the pupils who received reading homework *every day* did not differ statistically significantly from those of the other categories. The proportion of pupils receiving reading homework *every day* decreased in 2021 from 2011 (60%) and 2016 (69%). Most pupils were expected to spend *15 minutes or less* on their reading homework, and teachers of almost all pupils who received homework reported to *always or almost always* monitor its completion.

Very high proportions of pupils were taught by teachers who placed a lot of importance on *observing pupils as they work* and *asking pupils to answer questions during class*. Smaller proportions of pupils were taught by teachers who reported placing a lot of importance on *longer tests*, including standardised tests or unit tests, and *long-term projects*.

Almost four-fifths of pupils reported disorderly behaviour during *some* reading lessons, and more than one-tenth reported it during *most* reading lessons. Pupils who indicated that disorderly behaviour occurred in *most lessons* had a mean PIRLS score which was statistically significantly lower than those of the other categories (*some lessons* and *few or no lessons*).

School principals were asked about the extent to which instruction was affected by reading resource shortages. The majority of pupils attended schools which school principals considered as *somewhat affected*. Almost no pupils were in schools which were *affected a lot*. The proportions in each category remained generally stable between 2011 and 2021.

More than half of pupils were taught by teachers who were *very satisfied* with their job, but this proportion decreased from three-fifths in 2016. Teachers of one-tenth of pupils reported being *less than satisfied* which has increased from 4% in 2016. The mean PIRLS score of pupils whose teachers were *very satisfied* did not statistically significantly differ from those who were *somewhat satisfied* or *less than satisfied*.

Between one-third and one-fifth of pupils had teachers who completed professional development on various aspects of reading in the two years preceding PIRLS 2021, with the highest proportion reported for professional development on *teaching reading comprehension skills or strategies*. Teachers were also asked to prioritise their need for professional development on the same aspects of reading, and the teachers of most pupils reported their need as *high* or *medium*.

Teachers of over two-fifths of pupils read for enjoyment on a daily or near-daily basis, while teachers of less than one-tenth reported *never or almost never* reading for enjoyment. The mean PIRLS score of pupils whose teacher read for enjoyment *every day* did not statistically significantly differ from those of the other categories.

PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

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CHAPTER 5

Chapter 5: Reading Achievement by School Characteristics

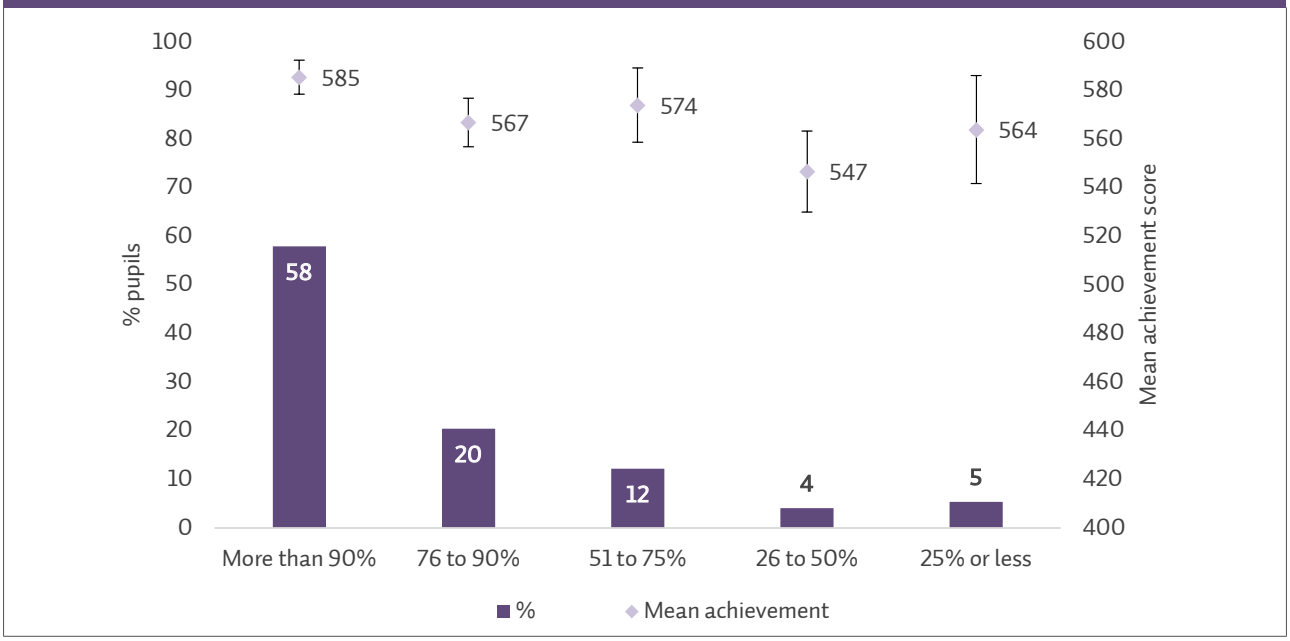
As part of the administration of PIRLS 2021, participating pupils, their parents, school principals, and Fifth Class teachers were asked to complete questionnaires, as described in Chapter 1. Drawing on these questionnaires, this chapter focuses on school-level factors that are relevant to the reading achievement of pupils in Ireland. Ireland's data are compared to those of selected reference countries and the corresponding averages across all PIRLS countries, while data from PIRLS 2011 and 2016 are also compared to those from 2021, where appropriate.

School composition

Pupils with English as their native language

School principals were asked to estimate the proportion of pupils in their school that had English, the language of the PIRLS assessment in Ireland, as their native language. Figure 5.1 shows the overall proportions of pupils within schools in Ireland that have English as their native language, along with the reading achievement scores of pupils within each category. In Ireland, 58% of pupils attended schools within which most pupils (*more than 90%*) spoke English as their native language, with a further 33% of pupils attending schools within which more than half (51 to 90%) spoke English as their native language. Although there was some variation in the reading achievement of pupils across categories, the highest achievement score (585) was for pupils in schools where *more than 90%* of pupils were native English speakers. Pupils across the rest of the categories tended to have similar achievement scores to schools where the majority spoke English, with only pupils from schools where *26 to 50%* of pupils had English as their native language achieving a statistically significantly lower score (547) than their peers in schools where the majority of pupils (*more than 90%*) spoke English as their native language.

Figure 5.1: Percentages and mean achievement of pupils in Ireland by the proportion of pupils in schools with English as their native language, with confidence interval around estimates of achievement (2021)



Source: Appendix Table A5.1.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 5.1 shows the overall proportions of pupils within schools in Ireland, selected reference countries, and on average across all PIRLS countries in 2021 that had the PIRLS assessment language as their native language, along with the reading achievement scores of pupils within each category. In Ireland, pupils in schools where the majority of pupils (*more than 90%*) spoke the language of the PIRLS assessment (i.e., English) as their native language had the highest mean score. This pattern was also found for some comparison countries such as Northern Ireland, Hong Kong, and Finland. For other comparison countries, such as Australia and New Zealand, the highest pupil achievement was for pupils attending schools where *76% to 90%* of pupils spoke the language of the assessment as their native language.

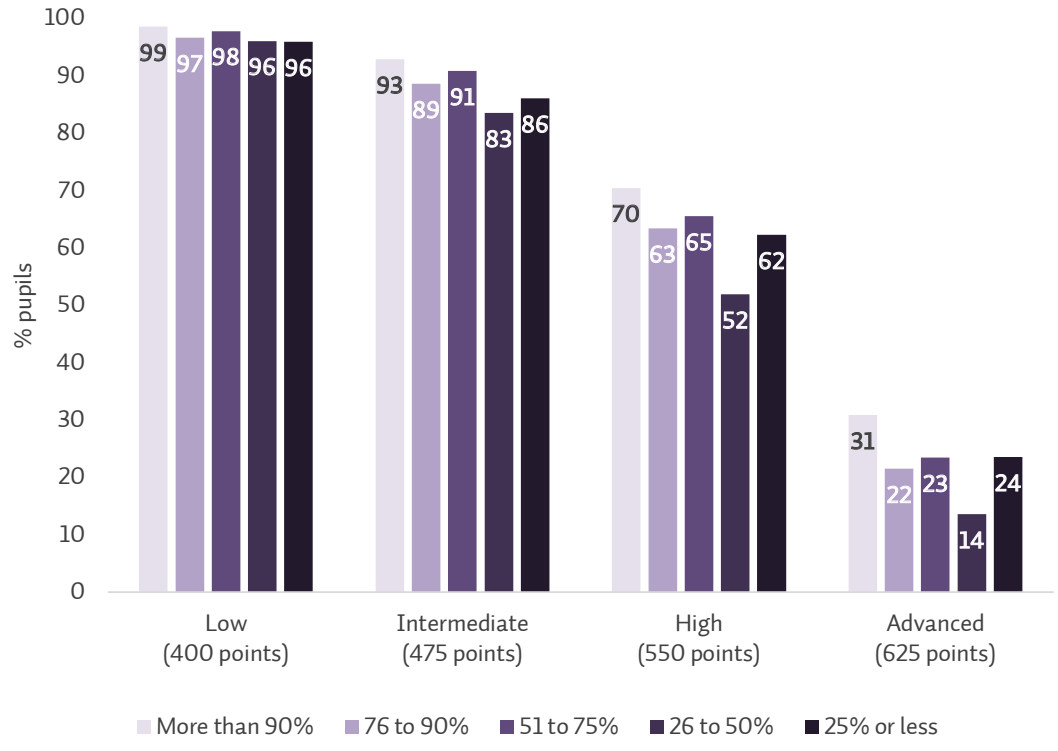
Table 5.1: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the proportion of pupils in schools with English as their native language (2021)

		Overall mean	More than 90%		76 to 90%		51 to 75%		26 to 50%		25% or less	
			%	Mean	%	Mean	%	Mean	%	Mean	%	Mean
	Ireland	577	58	585	20	567	12	574	4	547	5	564
Start G5	Northern Ireland	566	75	569	11	564	6	545	1	~	7	558
	Croatia	557	93	558	4	556	2	~	0	~	1	~
	Lithuania	552	86	550	10	551	1	~	1	~	2	~
End G4	Australia ⋈	540	47	538	15	552	18	539	13	542	7	529
	England ⋈	558	41	559	19	560	11	570	8	558	21	549
	Hong Kong SAR	573	93	576	5	536	2	~	0	n/a	0	n/a
	Poland	549	99	549	1	~	0	n/a	0	n/a	0	n/a
	Finland	549	70	554	18	547	9	522	3	518	1	~
	New Zealand	521	49	527	16	534	22	530	6	481	8	506
	Singapore	587	0	n/a	0	n/a	0	n/a	0	n/a	100	587

Source: Appendix Table A5.1.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS averages are not provided as several participating countries had no data on one or more of the categories of this variable, meaning that different numbers of countries would be included across the different categories.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the proportion of pupils in schools that had English as their native language is shown in Figure 5.2. While similar percentages of pupils across the categories reached the Low Benchmark (ranging from 96% to 99%), greater variation emerged in the percentages of pupils achieving higher benchmarks. Although there was a difference in the percentages of pupils reaching the Intermediate Benchmark, these were not statistically significantly different from each other. At the High and Advanced Benchmarks, the variation in percentages increased. Notably, statistically significantly fewer pupils from schools where *26 to 50%* of pupils had English as their native language reached either the High or Advanced Benchmarks, compared to all other categories.

Figure 5.2: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the proportion of pupils in schools with English as their native language (2021)



Source: Appendix Table A5.2.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

As this question was included in both PIRLS 2011 and 2016, comparisons can be made with the 2021 data. There was a small and not statistically significant decrease in the proportion of pupils attending schools with *more than 90%* speaking English as their native language in 2021 (58%) and 2016 (57%) compared to 2011 (64%). Mean differences between pupils attending schools where *more than 90%* of pupils spoke English as their native language and other categories changed across cycles; however, no clear patterns were observed (see Appendix Table A5.3).

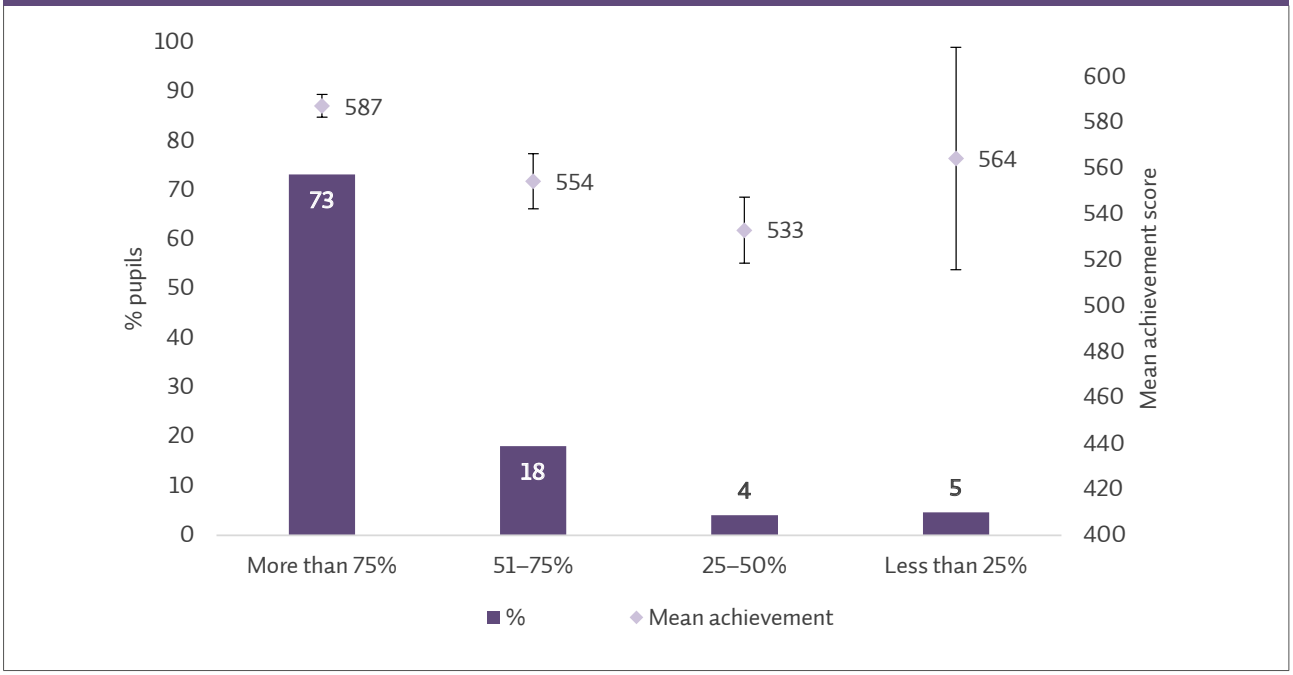
Pupils' literacy readiness

School principals were asked to estimate the proportion of pupils in their school having basic literacy skills (e.g., write the alphabet, write sentences, etc.) at the beginning of First Class. The options provided for 2021 were *more than 75%*, *51-75%*, *25-50%*, or *less than 25%*.

Figure 5.3 shows the overall proportions of pupils within schools in Ireland that had basic literacy skills, according to school principals, along with the reading achievement scores for each of the categories. The majority of pupils (73%) attended a school where *more than 75%* of pupils had basic literacy skills at the beginning of First Class. A smaller proportion of pupils (18%) attended a school where *51-75%* of pupils had basic literacy skills at the beginning of First Class, while 9% attended a school where less than 50% of pupils had basic literacy skills at the beginning of First Class. Overall, reading achievement was highest for pupils whose school had a greater proportion of pupils who had basic literacy skills at the beginning of First Class (*more than 75%)* (587). However, attending a school with a lower proportion of pupils with basic literacy skills was not necessarily associated with lower reading achievement, as pupils who attended schools where *less than 25%* of pupils had basic literacy skills had a higher score (564) than pupils who attended schools where *25-50%* (533) or *51-75%* (554) of pupils had basic literacy skills at the beginning of First Class. It should be noted, though, that these differences were not statistically

significant, and the large error margins for the achievement of the former group (*less than 25%*) should be taken into account in interpreting these data.

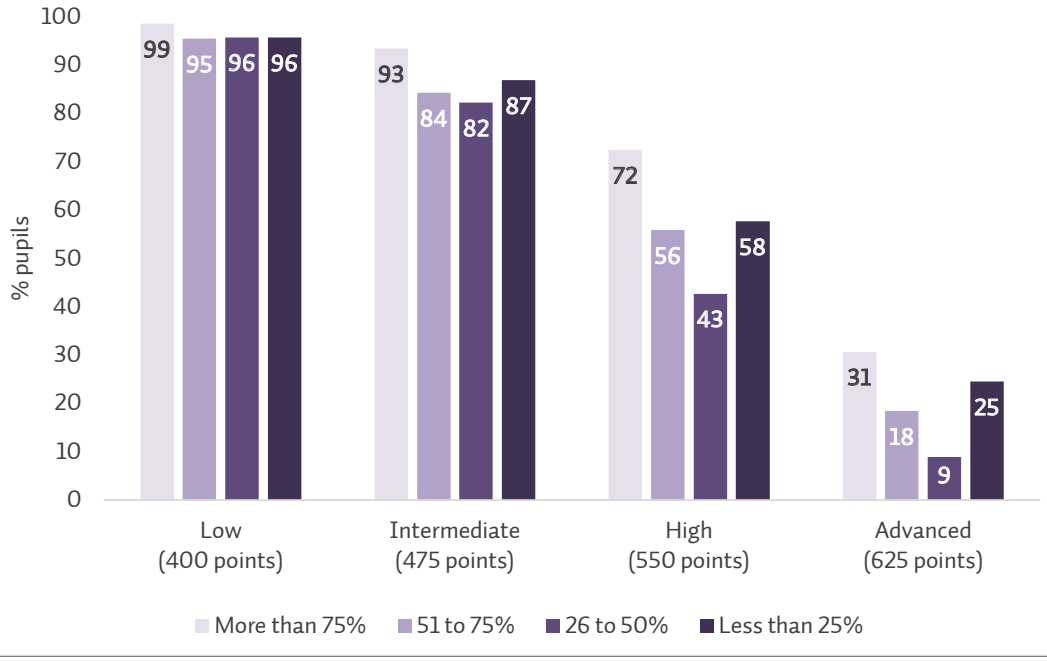
Figure 5.3: Percentages and mean achievement of pupils in Ireland by the proportion of pupils starting First Class with basic literacy skills, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A5.4.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the proportion of pupils with basic literacy skills at the beginning of First Class, as reported by school principals, is shown in Figure 5.4. The majority of pupils from each category achieved the Low Benchmark, while, at the Intermediate Benchmark, there was some variation across categories, with the highest percentages of pupils reaching this benchmark being from schools where either *more than 75%* or *less than 25%* of pupils had basic literacy skills, a pattern also noted at the High and Advanced Benchmarks.

Figure 5.4: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the proportion of pupils starting First Class with basic literacy skills (2021)



Source: Appendix Table A5.5.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

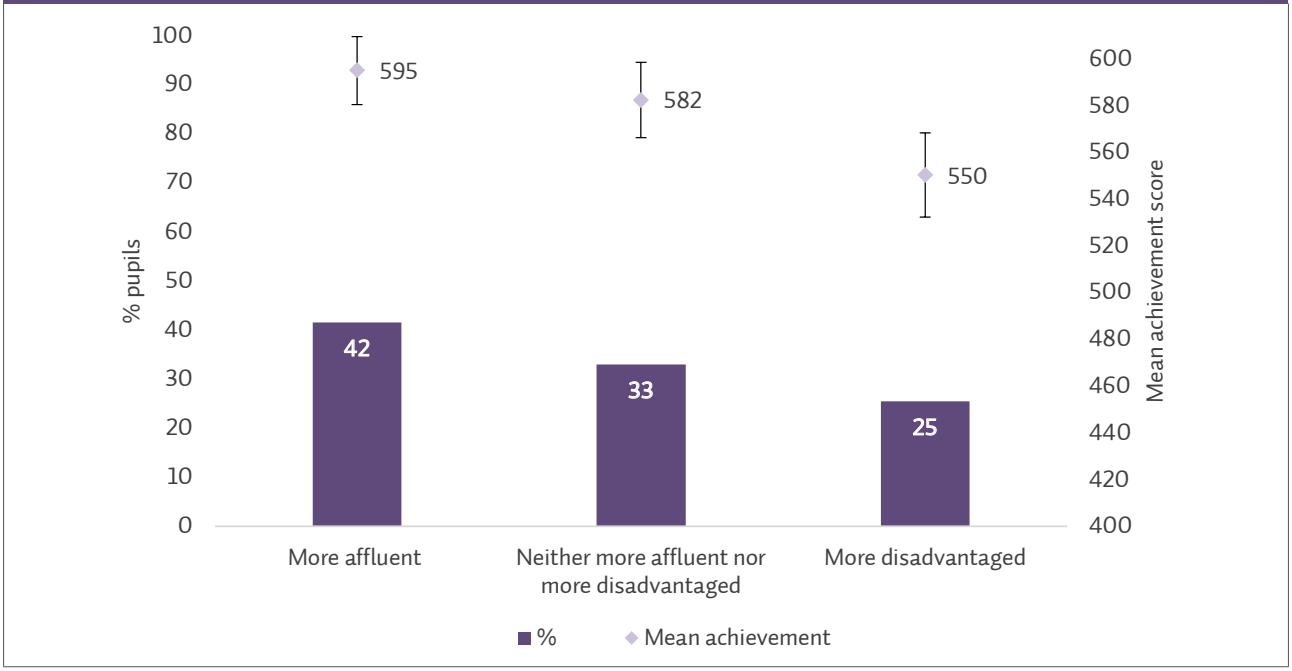
School socioeconomic composition

School principals were asked to estimate the socioeconomic composition of their school by estimating the percentages of pupils attending the school who came from economically affluent and economically disadvantaged homes. These reports were combined to characterise schools as *more affluent*, *neither affluent nor more disadvantaged*, or *more disadvantaged*.[29]

Figure 5.5 shows the percentages and mean achievement of pupils in each category of the PIRLS *School Composition by Socioeconomic Background of the Student Body* scale in Ireland in 2021. Approximately four out of 10 pupils (42%) attended schools with relatively *more affluent* pupils, while 25% of pupils attended schools with relatively *more disadvantaged* pupils. A third of pupils (33%) attended schools classified as *neither more affluent nor more disadvantaged* with regards to pupils' socioeconomic backgrounds. Pupils in the *more affluent* schools achieved a mean PIRLS score of 595 points, which was statistically significantly higher than those of their peers who attended *neither more affluent nor more disadvantaged* schools (582) or *more disadvantaged* schools (550).

29 Schools were categorised as *more affluent* when more than 25% of pupils in the school came from economically affluent homes and no more than 25% of pupils came from economically disadvantaged homes. Schools where 25% of pupils came from disadvantaged homes and no more than 25% came from affluent homes were categorised as *more disadvantaged*. All other response combinations were classified as *neither more affluent nor more disadvantaged* (Mullis et al., 2023).

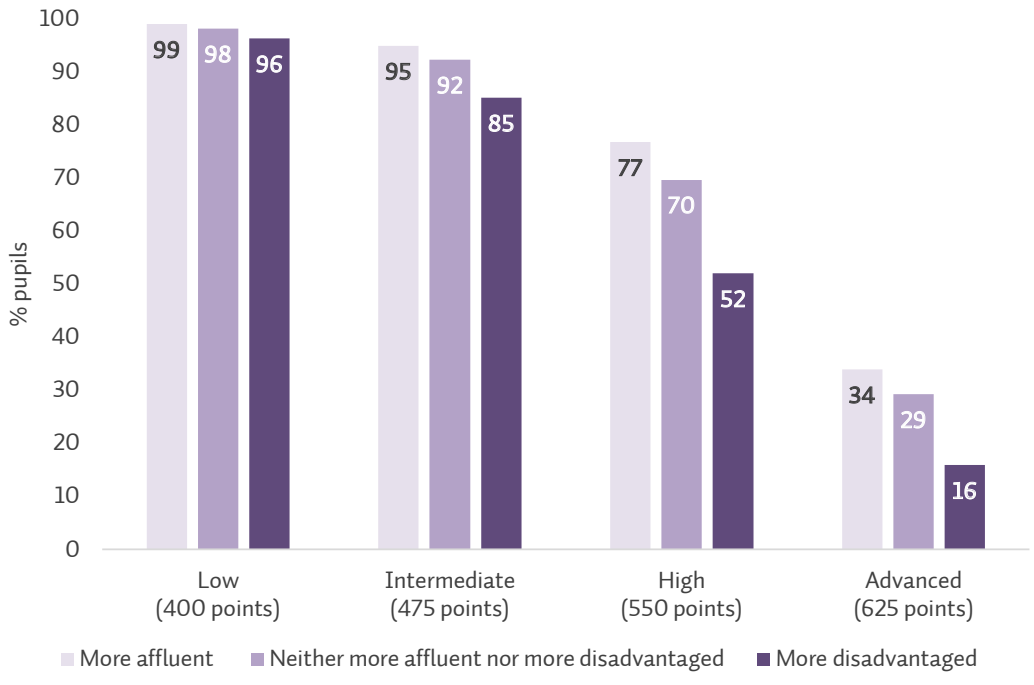
Figure 5.5: Percentages and mean achievement of pupils in Ireland by the *School Composition by Socioeconomic Background of the Student Body* scale, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A5.6.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by each category of the PIRLS *School Composition by Socioeconomic Background of the Student Body* scale in 2021 are shown in Figure 5.6. Percentage differences between pupils in *more affluent* schools and those in *more disadvantaged* schools were statistically significant across all benchmarks, with the widest difference being at the High Benchmark. While 95% of pupils who attended *more affluent* schools reached the Intermediate Benchmark, compared to 85% of pupils who attended *more disadvantaged* schools, forming a difference of 10 percentage points, the equivalent differences at the High and Advanced Benchmark were 25 and 18 percentage points, respectively (77% vs 52% and 34% vs 16%).

Figure 5.6: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the *School Composition by Socioeconomic Background of the Student Body* scale (2021)



Source: Appendix Table A5.7.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The *School Composition by Socioeconomic Background of the Student Body* scale was also included in PIRLS 2016; therefore, comparisons can be made with the 2021 data. The mean difference between pupils who attended *more affluent* schools and pupils who attended *more disadvantaged* schools seemed to, although remaining statistically significant, slightly decrease between 2016 (48-point difference) and 2021 (45-point difference). The mean difference between pupils who attended *more affluent* schools and those who attended schools that were *neither more affluent nor more disadvantaged* was also statistically significant; however, it increased slightly between 2016 (11-point difference) and 2021 (13-point difference) (see Appendix Table A5.6).

School-level resources

School library

Table 5.2 shows the percentages and mean achievement of pupils who attended schools that had a library and those who attended schools that did not have a library based on school principals' reports.[30]

In Ireland, over half of pupils (54%) attended a school that had a school library. Among those pupils attending schools which had a school library, 41% were reported to have access to more than 2,000 print books with different titles, while the majority of pupils (86%) were reported to be able to borrow both print and digital materials from their library to take home with them. Reading achievement for pupils who attended a school that did not have a school library (582) was higher, though not statistically significantly, than that of those who attended a school that did have a school library (573), while pupils who had more print books with different titles

30 Information about the existence of a library/reading corner in pupils' classrooms, based on teachers' reports, can be found in Chapter 4.

available to them (*more than 2,000 books*) achieved a higher mean score (579) than those who had fewer (*2,000 books or fewer*) (568); though, again, this difference was not statistically significant. Pupils who were able to take home print or digital materials from the school library achieved a slightly, though not statistically significantly, higher reading achievement score (573) than those who were not able to take such materials home (567).

Table 5.2: Percentages and mean achievement of pupils in Ireland, by school library resources (2021)

Does your school have a school library?	**%**	**Mean**
Yes	54	573
No	46	582
Approximately how many books (print) with different titles does your school library have (exclude magazines and periodicals)?	**%**	**Mean**
2,000 books or fewer	59	568
More than 2,000 books	41	579
Can pupils borrow print or digital materials from the library to take home?	**%**	**Mean**
Yes	86	573
No	14	567

Source: Appendix Table A5.8.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The percentages of pupils who had a library in their school varied across PIRLS cycles. Slightly fewer pupils had a library in their school in 2011 (52%), while more pupils had a school library in 2016 (64%) in comparison to 2021. Similarly to 2021, pupils in previous cycles who did not have a school library tended to achieve slightly higher reading achievement scores (554 in 2011; 569 in 2016) than those who did have a school library (549 in 2011; 566 in 2016), though, within each cycle, this difference was not statistically significant.

Of those pupils reported to have a school library, there was a larger proportion reported to have more books available in 2016 compared to 2021, with 48% and 41% of pupils having a school library with more than 2,000 books in 2016 and 2021, respectively.[31] The percentage of pupils who were able to take library materials home from school also decreased, with 94% being able to take print books home in 2016 and 86% being able to take print or digital materials home in 2021. However, these declines in 2021 should be interpreted considering schools' policies to contain the spread of COVID-19, which may have included temporary restrictions on borrowing materials to take home (see Appendix Table A5.8).

Digital learning resources

Table 5.3 shows the overall proportions of pupils within schools in Ireland, selected reference countries, and on average across all PIRLS countries in 2021 by pupils' access to digital learning resources (e.g., e-books, videos) in the school. Four out of five pupils in Ireland (79%) attended a school where there were digital learning resources available to them. Although this proportion was similar to that of the PIRLS average (80%), Ireland was found to have the lowest proportion of pupils attending schools in which digital learning resources were available across the reference countries. With regards to overall reading achievement, pupils in Ireland who did not have access to digital learning resources at school achieved a higher (though, not statistically significantly) mean score (580) than pupils who attended schools where such resources were

31 This question was not administered in 2011, therefore there are no data available for comparison.

available (576), with this pattern also being noted for a few of the reference countries (England, New Zealand). Similarly to Ireland, mean differences between the two groups of pupils were not statistically significant within each of the reference countries.

Table 5.3: Percentages and mean achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by availability of digital learning resources in schools (2021)

		Overall mean	Yes		No	
			%	Mean	%	Mean
Start G5	Ireland	577	79	576	21	580
	Northern Ireland	566	87	567	13	561
	Croatia	557	93	557	7	556
	Lithuania	552	91	550	9	539
End G4	Australia ⋈	540	94	541	6	536
	England ⋈	558	82	558	18	563
	Hong Kong SAR	573	99	573	1	~
	Poland	549	85	550	15	544
	Finland	549	90	550	10	545
	New Zealand	521	94	520	6	539
	Singapore	587	93	587	7	586
	PIRLS	503	80	505	20	496

Source: Appendix Table A5.9.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

The availability of digital learning resources within schools in Ireland can be examined from a trend perspective as school principals were also asked about it in 2016. However, it must be noted that, in 2016, school principals were asked to report on access to *digital books*, while in 2021 they were asked to report on access to *digital learning resources* (which included e-books). There was a statistically significant increase in the percentage of pupils attending a school where digital learning resources were available between the two PIRLS cycles, from 19% in 2016 to 79% in 2021. In both cycles, pupils who had access to such resources tended to achieve slightly lower scores in reading (561 in 2016; 576 in 2021) than those who did not have access to them (568 in 2016; 580 in 2021); however, both in 2016 and 2021, mean differences were not statistically significant (see Appendix Table A5.10).

School climate, discipline, and safety

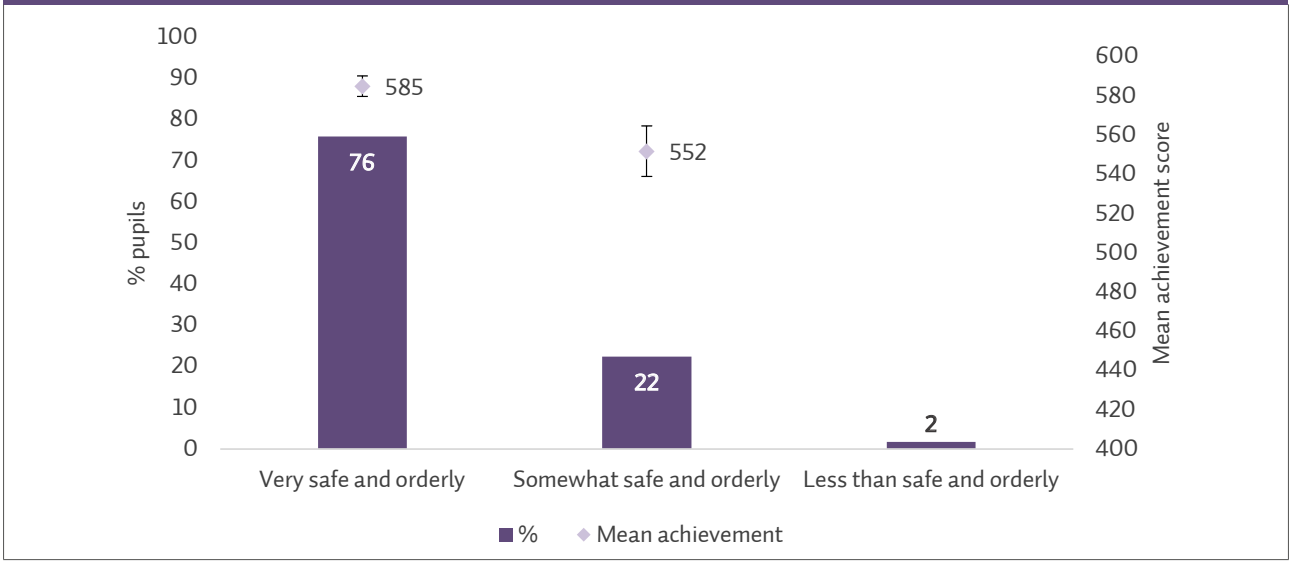
Safe and orderly school

Teachers' level of agreement with nine statements were used to create the PIRLS *Safe and Orderly School* scale. The statements were: *This school is located in a safe neighbourhood*; *I feel safe at this school*; *This school's security policies and practices are sufficient*; *The pupils behave in an orderly manner; The pupils are respectful of the teachers; The pupils respect school property; This school has clear rules about pupil conduct; This school's rules are enforced in a fair and consistent manner*; *The pupils are respectful of each other*. Based on the responses, pupils were categorised as attending schools judged by their teachers to be *very safe and orderly*, *somewhat*

safe and orderly, or *less than safe and orderly*.[32]

Figure 5.7 shows the percentages and mean achievement of pupils in each category of the PIRLS *Safe and Orderly School* scale in Ireland in 2021. Approximately three-quarters of pupils (76%) attended a school judged by their teachers as being *very safe and orderly*, 22% attended schools that were judged to be *somewhat safe and orderly*, and only 2% of pupils attended schools judged to be *less than safe and orderly*. Pupils who attended a school categorised as *very safe and orderly* achieved a mean PIRLS score of 585 points, which was statistically significantly higher than that of their peers who attended a school judged by their teachers as *somewhat safe and orderly* (552). Due to the small number of pupils and resulting error margins, the estimate of mean achievement for pupils in the *less than safe and orderly* category is not reported as no clear conclusions can be drawn about their relative performance.

Figure 5.7: Percentages and mean achievement of pupils in Ireland by the *Safe and Orderly School* scale, with confidence intervals around estimates of achievement (2021)

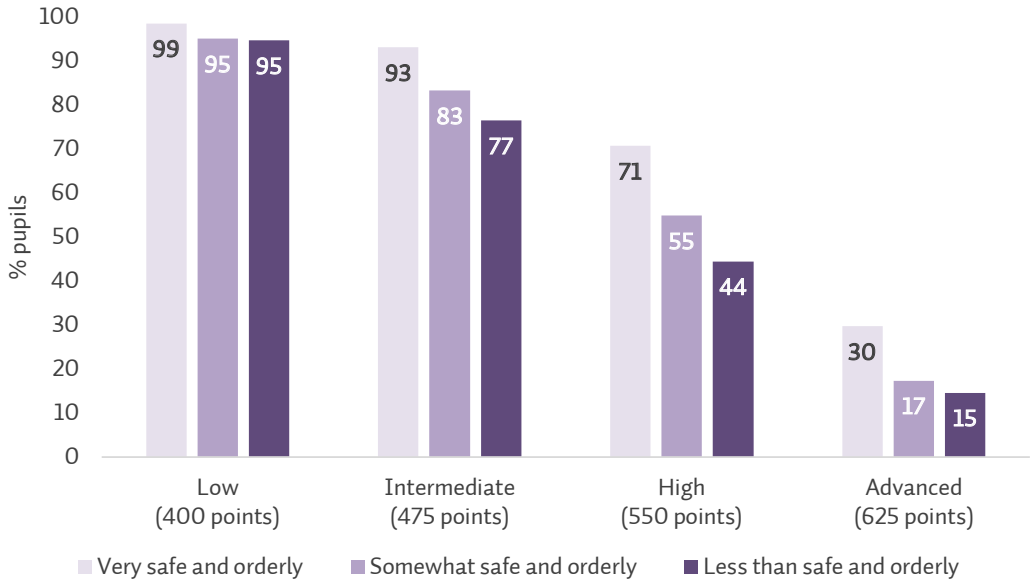


Source: Appendix Table A5.11.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Mean achievement is not reported for the *less than safe and orderly* category due to insufficient data.

The cumulative percentages of pupils in each category of the PIRLS *Safe and Orderly School* scale in Ireland reaching each of the four International Benchmarks are shown in Figure 5.8. Percentages for the *less than safe and orderly* category should be interpreted with caution as this category is represented by only 2% of the sample. Percentage differences between the *very safe and orderly* and *somewhat safe and orderly* categories were statistically significant across all benchmarks, with the former tending to have an advantage compared to the latter, as percentage differences ranged from four to 16 percentage points. This difference was widest at the High Benchmark, where 71% of pupils who attended a school judged to be *very safe and orderly* reached this benchmark, in comparison to 55% of pupils who attended a school judged as *somewhat safe and orderly*. Statistically significantly more pupils who attended schools judged as *very safe and orderly* reached the Advanced Benchmark (30%) in comparison to pupils who attended a school deemed *somewhat safe and orderly* (17%).

32 International comparisons for teacher questionnaire data are not available due to differences in the questionnaire administration. In Ireland, and a few other countries, the teacher questionnaire was administered to fifth grade (equivalent to Fifth Class in Ireland) rather than fourth grade (equivalent to Fourth Class in Ireland) teachers, precluding direct comparisons.

Figure 5.8: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the *Safe and Orderly School* scale (2021)



Source: Appendix Table A5.12.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included a *Safe and Orderly School* scale; however, the component questions used to create the scale were different for each cycle.[33] This means that comparisons between cycles for this scale should be made with caution, and are only possible between certain component questions used across cycles (additional information about the scale components across cycles can be found in Appendix Table A5.13).

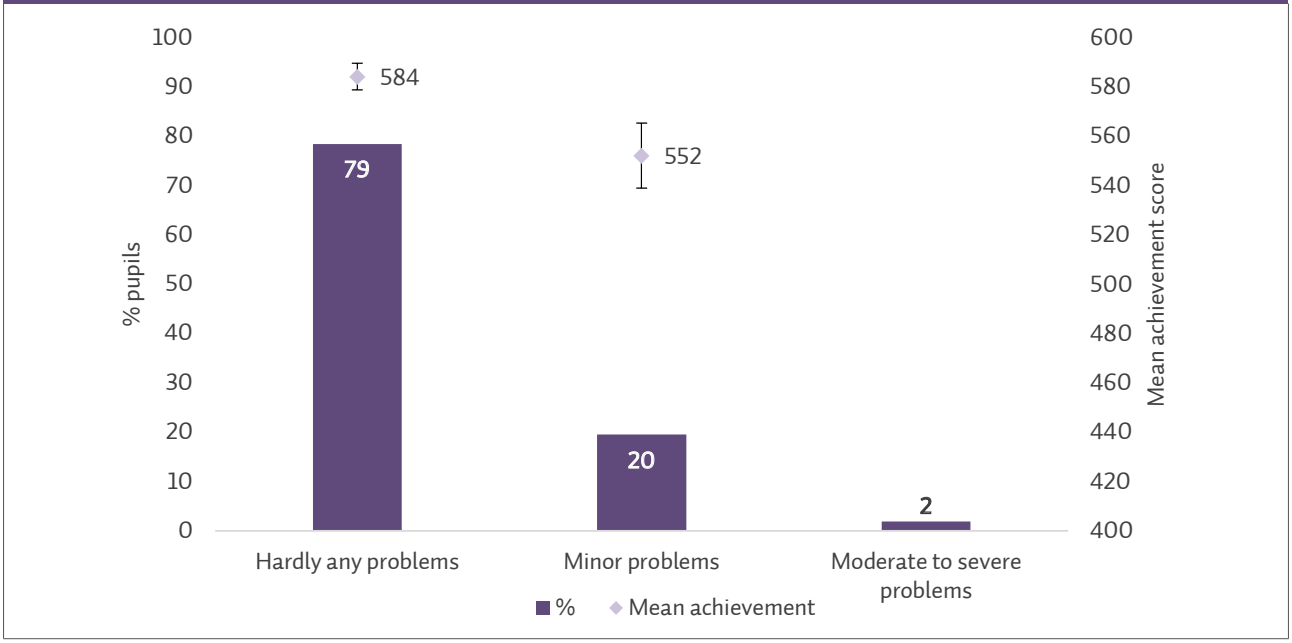
School discipline

School principals were asked to report the extent to which 10 discipline-related behaviours among pupils were a problem in their school. These 10 behaviours were: *Arriving late at school*; *Absenteeism (i.e., unjustified absences); Classroom disturbance*; *Cheating*; *Profanity*; *Vandalism*; *Theft*; *Intimidation or verbal abuse among pupils (including texting, emailing, etc.)*; *Physical fights among pupils*; *Intimidation or verbal abuse of teacher or staff (including texting, emailing, etc.)*. Their responses were used to create the PIRLS *School Discipline* scale, on the basis of which pupils were described as attending schools with *hardly any problems*, *minor problems*, or *moderate to severe problems*.

Figure 5.9 shows the percentages and mean achievement of pupils in each category of the PIRLS *School Discipline* scale in Ireland in 2021. In Ireland, 79% of pupils attended a school with *hardly any problems*, while 20% attended schools with *minor problems*. Less than 2% of pupils in Ireland attended a school with *moderate to severe problems*. Pupils who attended a school with *hardly any problems* achieved a mean PIRLS score of 584 points, which was statistically significantly higher than that of their peers who attended a school with *minor problems* (552). Due to the small number of pupils and resulting error margins, the estimate of mean achievement for pupils in the *moderate to severe problems* category is not reported as no clear conclusions can be drawn about their relative performance.

33 In 2011, the scale consisted of five questions, in 2016 this rose to eight questions, while the scale in 2021 was created based on nine questions.

Figure 5.9: Percentages and mean achievement of pupils in Ireland by the *School Discipline* scale, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A5.14.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Mean achievement is not reported for the *moderate to severe problems* category due to insufficient data.

Table 5.4 shows the percentages and mean achievement of pupils in each category of the PIRLS *School Discipline* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The pattern noted for Ireland was evident across all reference countries, with mean differences between pupils who attended schools that had *hardly any problems* and those who attended schools with *minor problems* ranging from three points in Lithuania to 37 in New Zealand. However, for some of the countries (e.g., Croatia, Poland, Singapore), this difference was not statistically significant.

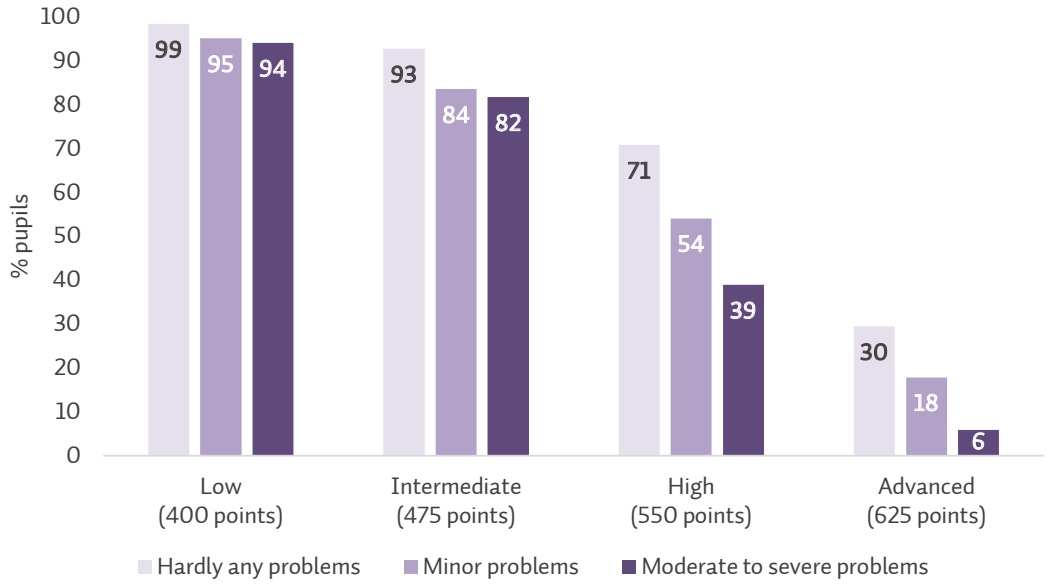
Table 5.4: Percentages and mean achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the *School Discipline* scale (2021)

		Overall mean	Hardly any problems		Minor problems		Moderate to severe problems	
			%	Mean	%	Mean	%	Mean
Start G5	Ireland	577	79	584	20	552	2	~
	Northern Ireland	566	84	571	15	540	1	~
	Croatia	557	77	559	20	554	3	521
	Lithuania	552	75	550	24	547	1	~
End G4	Australia ⋈	540	69	548	29	525	2	~
	England ⋈	558	76	564	22	542	2	~
	Hong Kong SAR	573	93	574	7	550	0	n/a
	Poland	549	61	551	37	546	2	~
	Finland	549	68	554	30	541	2	~
	New Zealand	521	54	540	40	503	6	470
	Singapore	587	81	589	19	580	0	~

Source: Appendix Table A5.14.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS averages are not provided as several participating countries had no data on one or more of the categories of this variable, meaning that different numbers of countries would be included across the different categories.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks within each of the categories of the PIRLS *School Discipline* scale are shown in Figure 5.10. Percentages for the *moderate to severe problems* category should be interpreted with caution as this category is represented by only 2% of the sample. Percentage differences between pupils attending schools with *hardly any problems* and schools with *minor problems* or *moderate to severe problems* were statistically significant across all benchmarks. These differences were at their widest for each category at the High Benchmark, where 71% of pupils who attended a school where there were *hardly any problems* reached this benchmark, in comparison to 54% of pupils from schools with *minor problems*, and 39% of pupils from schools with *moderate to severe problems*. At the Advanced Benchmark, statistically significantly more pupils who attended a school that had *hardly any problems* reached this benchmark (30%) in comparison to pupils who attended a school with *minor problems* (18%) or *moderate to severe problems* (6%).

Figure 5.10: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the *School Discipline* scale (2021)



Source: Appendix Table A5.15.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

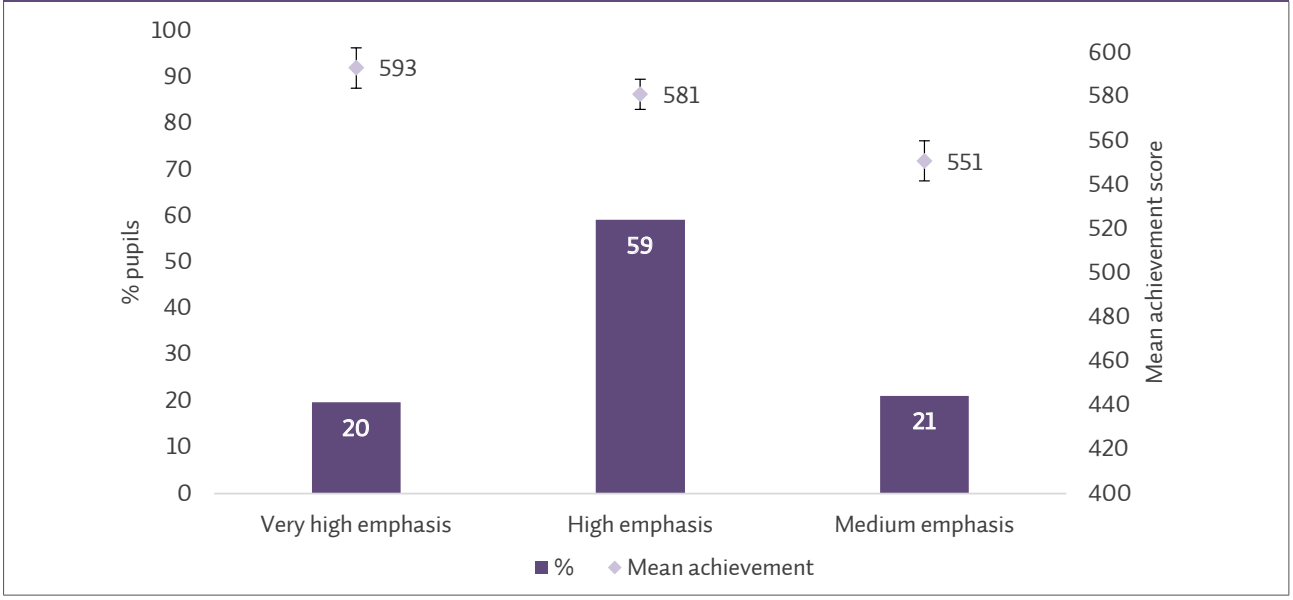
As this scale was included in both PIRLS 2011 and 2016, comparisons across cycles are possible. The percentages of pupils attending schools with *hardly any problems* remained stable from 2011 to 2016 (83%, respectively) and slightly dropped in 2021 (79%). Mean score differences between pupils at schools with *hardly any* problems and those at schools with *minor problems* were statistically significant across all three PIRLS cycles, favouring the former group of pupils (see Appendix Table A5.16).

School emphasis on academic success

School principals were asked to report the extent of their schools' expectations for academic achievement across 12 aspects. These 12 aspects were: *Teachers' understanding of the school's curriculum goals*; *Teachers' degree of success in implementing the school's curriculum*; *Teachers expectations for pupil achievement*; *Teachers' ability to inspire pupils; Collaboration between school leadership and teachers to plan instruction*; *Parental involvement in school activities*; *Parental commitment to ensure that pupils are ready to learn*; *Parental expectations for pupil achievement*; *Parental support for pupil achievement*; *Pupils' desire to do well in school*; *Pupils' ability to reach school's academic goals; Pupils' respect for classmates who excel academically.* Their responses were used to create the PIRLS *School Emphasis on Academic Success* scale, on the basis of which pupils were described as attending schools with *very high emphasis, high emphasis*, or *medium emphasis* on academic success.

Figure 5.11 shows the percentages and mean achievement of pupils in each category of the PIRLS *School Emphasis on Academic Success* scale in Ireland in 2021. A fifth of pupils attended a school with *very high emphasis* on academic success, while 59% attended schools with *high emphasis* on academic success. Approximately a fifth (21%) of pupils in Ireland attended a school with a *medium emphasis* on academic success. Pupils who attended schools with a *very high emphasis* on academic success achieved a mean PIRLS score of 593 points; although this was higher than the mean scores of pupils in the *high emphasis* (581) and *medium emphasis* (551) categories, it was only statistically significantly different from the mean score of the latter group.

Figure 5.11: Percentages and mean achievement of pupils in Ireland by the *School Emphasis on Academic Success* scale, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A5.17.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 5.5 shows the percentages and mean achievement of pupils in each category of the PIRLS *School Emphasis on Academic Success* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Ireland had the highest proportion of pupils in schools with a *very high emphasis* on academic success (20%) across the reference countries. With regards to mean achievement, the pattern observed in Ireland was also evident in most of the reference countries, with score differences between pupils whose school had a *very high emphasis* and those whose school had a *medium emphasis* ranging from seven points in Croatia to 73 in New Zealand.

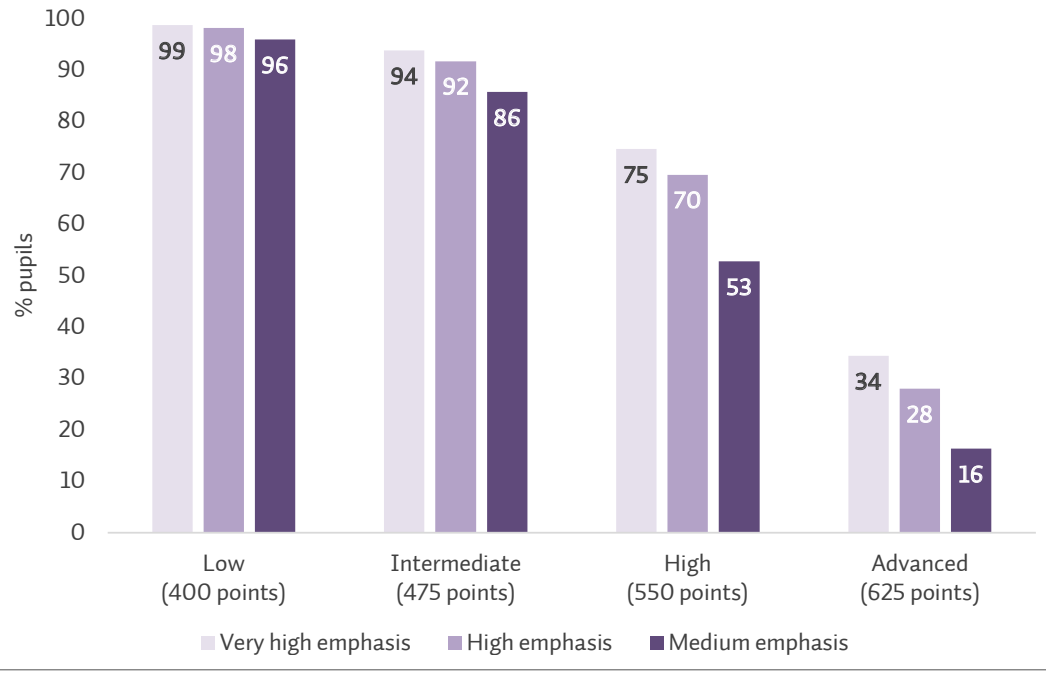
Table 5.5: Percentages and mean achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the *School Emphasis on Academic Success* scale (2021)

		Overall mean	Very high emphasis		High emphasis		Medium emphasis	
			%	Mean	%	Mean	%	Mean
Start G5	Ireland	577	20	593	59	581	21	551
	Northern Ireland	566	16	585	70	568	14	538
	Croatia	557	5	560	73	558	22	553
	Lithuania	552	9	555	77	550	13	536
End G4	Australia ⋈	540	13	566	58	545	29	520
	England ⋈	558	12	580	61	563	26	539
	Hong Kong SAR	573	5	582	53	578	42	565
	Poland	549	9	558	56	553	35	540
	Finland	549	7	569	70	552	23	536
	New Zealand	521	18	562	55	523	26	489
	Singapore	587	11	615	73	589	16	559
	PIRLS	503	10	524	58	509	32	486

Source: Appendix Table A5.17.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks within each of the categories of the PIRLS *School Emphasis on Academic Success* scale are shown in Figure 5.12. Percentage differences between pupils in schools with a *very high emphasis* on academic success and pupils in schools with a *high emphasis* widened with every subsequent benchmark, with the largest difference (six percentage points) being noted at the Advanced Benchmark. However, none of these differences were statistically significant. The percentage differences between pupils in schools with a *very high emphasis* on academic success and those in schools with a *medium emphasis* were statistically significant across all benchmarks except for the Low Benchmark, with the widest difference (22 percentage points) being noted at the High Benchmark. At the Advanced Benchmark, over twice as many pupils from schools with a *very high emphasis* reached this benchmark (34%), in comparison to pupils from schools with a *medium emphasis* on academic success (16%).

Figure 5.12: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the *School Emphasis on Academic Success* scale (2021)



Source: Appendix Table A5.18.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included a *School Emphasis on Academic Success* scale; however, the 2011 scale was slightly different to the corresponding 2016 and 2021 scales.[34] This means that comparisons are only possible between the 2016 and 2021 data (additional information about the scale components across cycles can be found in Appendix Table A5.20). Notably, the percentages of pupils reported to be in schools with a *medium emphasis* on academic success increased between 2016 (12%) and 2021 (21%), while mean differences between pupils in schools with a *very high emphasis* and pupils in schools with a *medium emphasis* seemed to decrease between 2016 (53-point difference) and 2021 (42-point difference) (see Appendix Table A5.19).

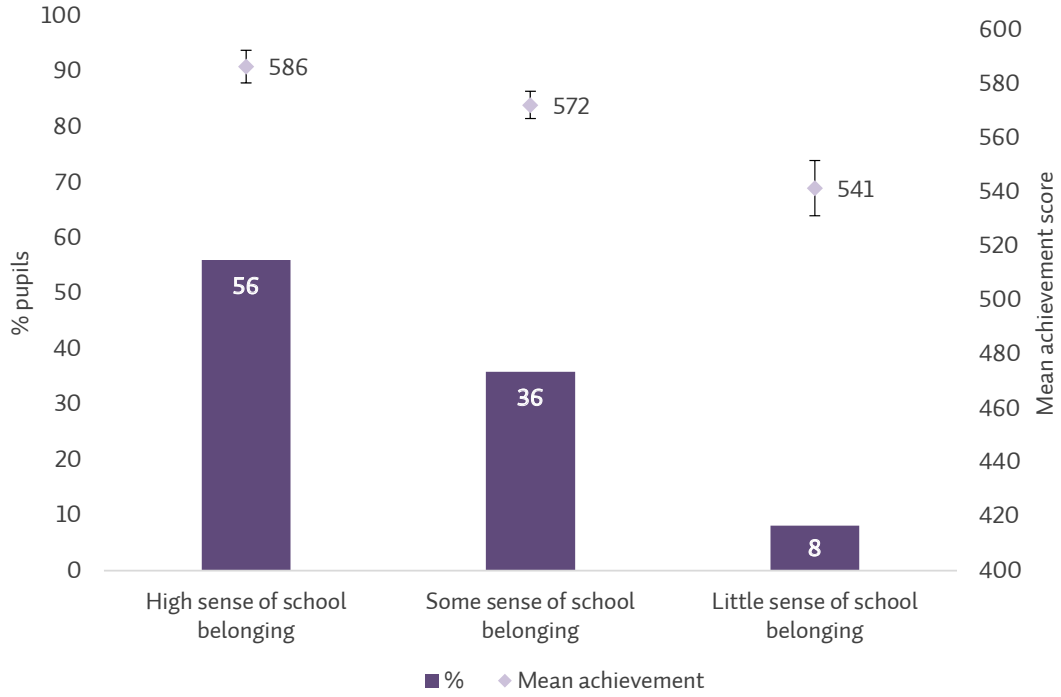
Pupil sense of school belonging

The extent of pupil's sense of school belonging was captured through five items in the pupil questionnaire: *I like being in school; I feel safe when I am at school; I feel like I belong at this school; Teachers at my school are fair to me; I am proud to go to this school*. Pupils were asked how much they agreed or disagreed with the five statements and their responses were used to create the PIRLS *Sense of School Belonging* scale, on the basis of which, pupils were grouped into three categories: *high sense of school belonging, some sense of school belonging,* and *little sense of school belonging*.

Figure 5.13 shows the percentages and mean achievement of pupils in each category of the PIRLS *Sense of School Belonging* scale in Ireland in 2021. More than half of pupils in Ireland (56%) reported having a *high sense of school belonging*, with a further 36% reporting that they had *some sense of school belonging*, and only 8% reporting having *little sense of school belonging*. Pupils with *high sense of school belonging* achieved a mean PIRLS score of 586 points, which was statistically significantly higher than those of their peers with *some* (572) or *little sense of school belonging* (541).

34 In 2011, the scale included five questions. For 2016 and 2021, this rose to 12 questions.

Figure 5.13: Percentages and mean achievement of pupils in Ireland by the *Sense of School Belonging* scale, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A5.21.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 5.6 shows the percentages and mean achievement of pupils in each category of the PIRLS *Sense of School Belonging* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The pattern observed in Ireland was also evident internationally, with mean score differences between pupils with a *high sense of school belonging* and those with *little sense of school belonging* ranging from five points in Poland to 53 in Northern Ireland. Ireland's mean difference (45 points) was larger in magnitude compared to the corresponding differences in most of the reference countries.

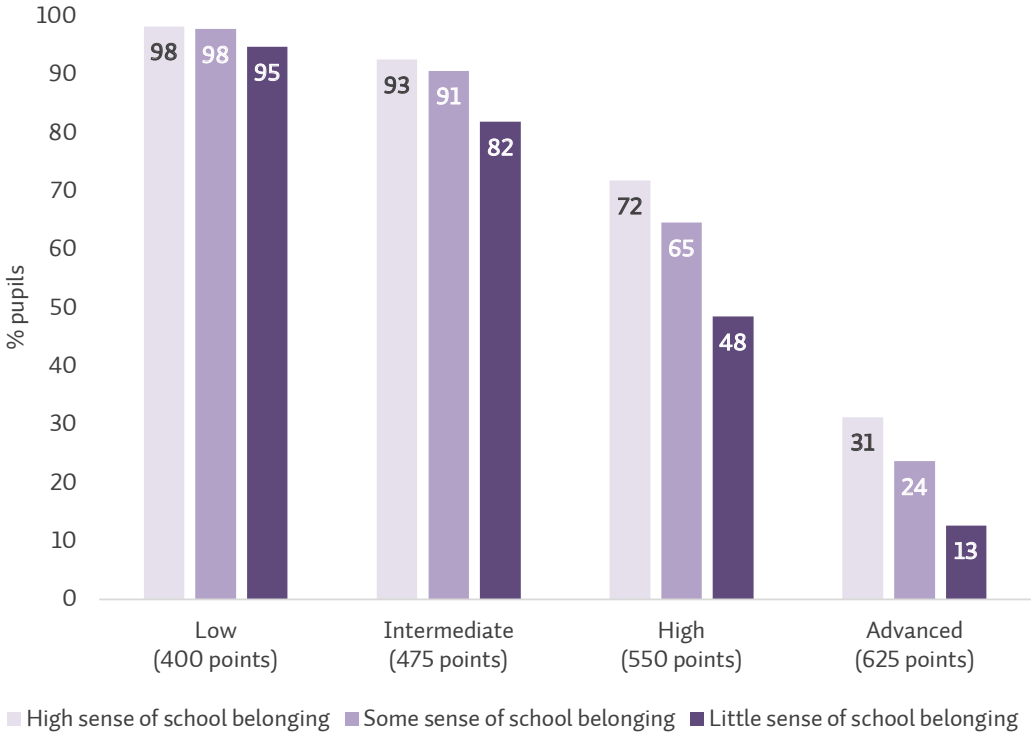
Table 5.6: Percentages and mean achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the *Sense of School Belonging* scale (2021)

		Overall mean	High sense of school belonging		Some sense of school belonging		Little sense of school belonging	
			%	Mean	%	Mean	%	Mean
Start G5	Ireland	577	56	586	36	572	8	541
	Northern Ireland	566	61	578	33	553	6	525
	Croatia	557	38	563	51	558	11	534
	Lithuania	552	47	558	44	552	10	535
End G4	Australia ⋈	540	54	549	37	537	8	508
	England ⋈	558	56	566	35	554	8	523
	Hong Kong SAR	573	43	584	44	569	13	553
	Poland	549	43	546	47	556	10	541
	Finland	549	66	556	29	543	5	518
	New Zealand	521	58	535	33	518	9	499
	Singapore	587	52	597	37	584	11	560
	PIRLS	503	63	512	30	495	7	474

Source: Appendix Table A5.21.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the PIRLS *Sense of School Belonging* scale are shown in Figure 5.14. Percentage differences between pupils with a *high sense of school belonging* and *some sense of school belonging* ranged between zero and eight percentage points but were only statistically significant at the High and Advanced Benchmarks. Percentage differences between pupils with a *high sense of school belonging* and those with *little sense of school belonging* ranged between three and 23 percentage points and were statistically significant across all benchmarks except for the Low Benchmark. In fact, more than twice as many pupils who reported having a *high sense of school belonging* reached the Advanced Benchmark (31%), in comparison to pupils who reported having *little sense of school belonging* (13%).

Figure 5.14: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the *Sense of School Belonging* scale (2021)



Source: Appendix Table A5.22.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included a *Sense of School Belonging* scale; however, the 2011 scale was slightly different to the corresponding 2016 and 2021 scales.[35] This means that comparisons are only possible between the 2016 and 2021 data (additional information about the scale components across cycles can be found in Appendix Table A5.24). The percentage of pupils reporting a *high sense of school belonging* decreased slightly, yet statistically significantly, across cycles (61% in 2016 and 56% in 2021), while the percentage of pupils reporting having *some sense of school belonging* increased slightly, but statistically significantly, between 2016 and 2021 (31% in 2016 and 36% in 2021). Mean differences between pupils with a *high sense of school belonging* and pupils with *little sense of school belonging* seemed to remain stable, with mean differences of 44 and 45 points being statistically significant in both 2016 and 2021, respectively (see Appendix Table A5.23).

Pupil bullying

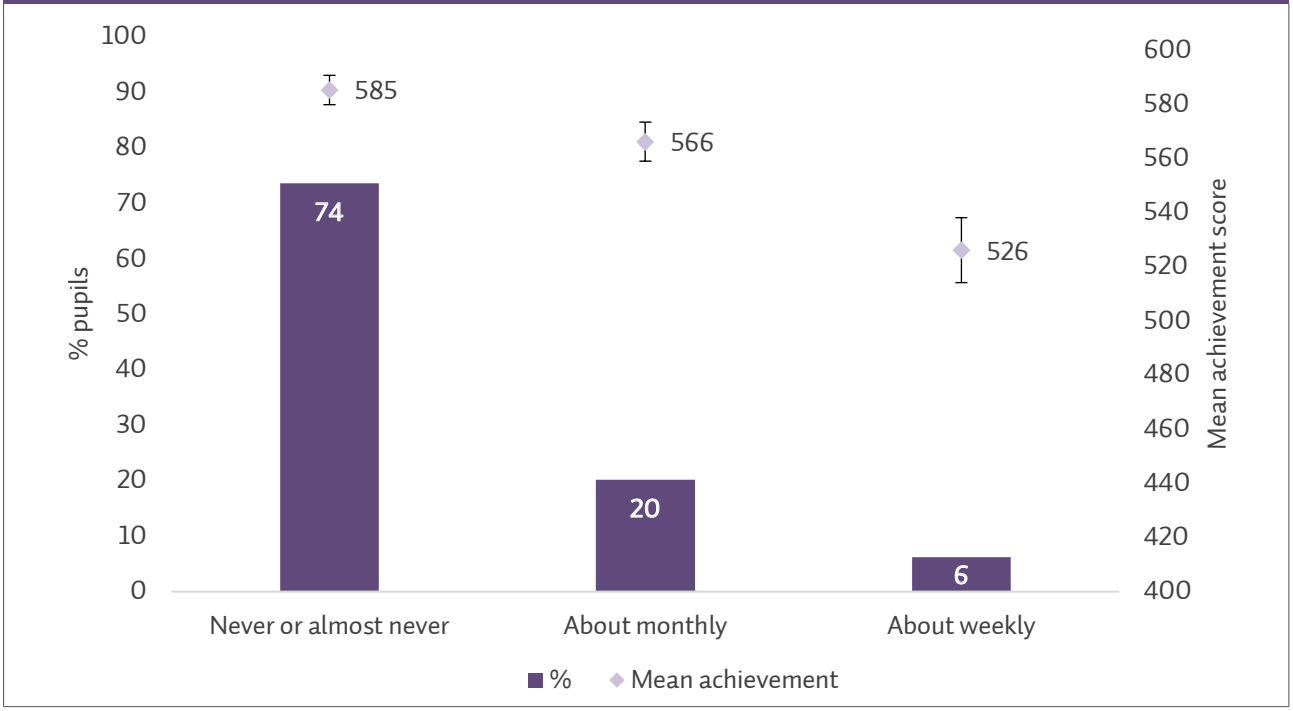
Pupils were asked to report how often they experienced bullying in school. Pupils were asked how frequently they experienced 10 bullying behaviours: *Made fun of me or called me names; Left me out of their games or activities; Spread lies about me; Stole something from me; Damaged something of mine on purpose; Hit or hurt me (e.g., shoving, hitting, kicking); Made me do things I didn't want to do; Sent me nasty or hurtful messages online; Shared nasty or hurtful information about me online; Threatened me.* Pupil responses were used to create the PIRLS *Student Bullying* scale, on the basis of which, pupils were grouped into three categories: *never or almost never*, *about monthly,* or *about weekly*.

Figure 5.15 shows the percentages and mean achievement of pupils in each category of the

35 In 2011, the scale included three questions. For 2016 and 2021, this rose to five questions.

PIRLS *Student Bullying* scale in Ireland in 2021. Three-quarters of pupils reported *never or almost never* being bullied, a fifth (20%) reported being bulled *about monthly*, and a relatively small percentage (6%) reported being bullied *about weekly*. Pupils who reported being bullied *never or almost never* achieved a mean PIRLS score of 585 points, which was statistically significantly higher than those of their peers who reported being bullied *about monthly* (566) or *about weekly* (526).

Figure 5.15: Percentages and mean achievement of pupils in Ireland by the *Student Bullying* scale, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A5.25.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 5.7 shows the percentages and mean achievement of pupils in each category of the PIRLS *Student Bullying* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Ireland was similar to many reference countries, whereby over half of pupils reported being bullied *never or almost never*. The pattern observed for mean achievement in Ireland was also evident internationally, with mean differences between pupils who reported being bullied *never or almost never* and those who were bullied *about weekly* ranging from 45 points in Australia to 74 in New Zealand.

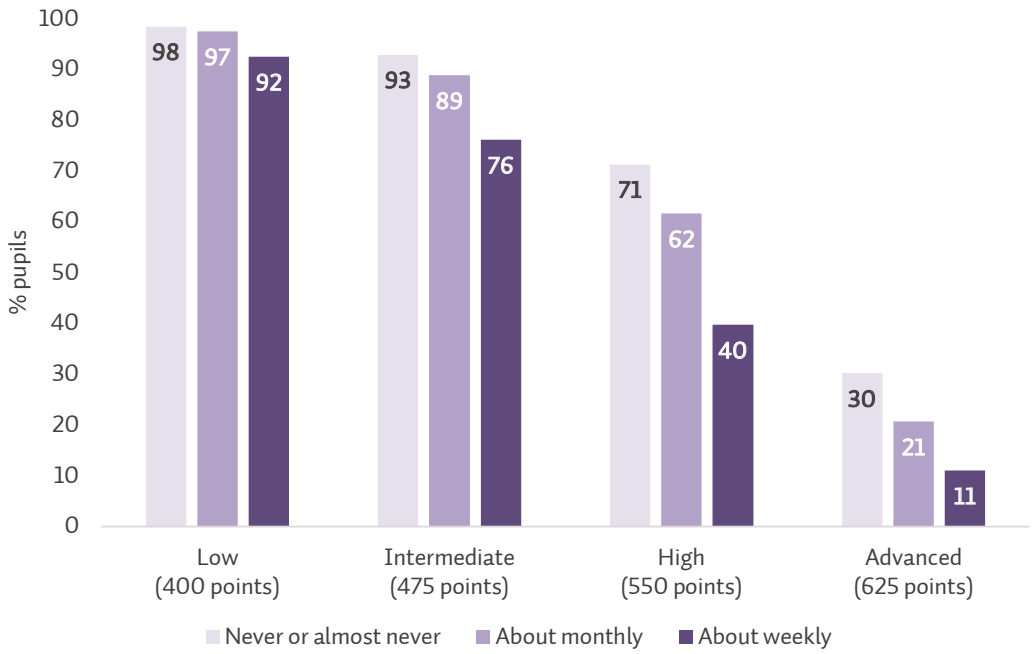
Table 5.7: Percentages and mean achievement in Ireland, selected reference countries, and on average across all PIRLS countries, by the *Student Bullying* scale (2021)

		Overall mean	Never or almost never		About monthly		About weekly	
			%	Mean	%	Mean	%	Mean
Start G5	Ireland	577	74	585	20	566	6	526
	Northern Ireland	566	66	578	27	552	7	516
	Croatia	557	69	566	21	548	9	511
	Lithuania	552	59	568	28	544	13	502
End G4	Australia ⋈	540	52	553	35	537	13	508
	England ⋈	558	54	568	35	555	11	518
	Hong Kong SAR	573	81	579	16	557	3	517
	Poland	549	74	559	20	534	6	493
	Finland	549	75	557	20	539	5	495
	New Zealand	521	46	542	35	530	19	468
	Singapore	587	59	602	29	579	12	537

Source: Appendix Table A5.25.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS averages are not provided as several participating countries had no data on one or more of the categories of this variable, meaning that different numbers of countries would be included across the different categories.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the PIRLS *Student Bullying* scale are shown in Figure 5.16. Percentage differences between pupils who experienced bullying *never or almost never* and pupils who experienced bullying *about monthly* were statistically significant across all benchmarks except for the Low Benchmark. This difference was at its widest at both the High and Advanced Benchmarks, with 71% and 30% of pupils who reported being bullied *never or almost never* reaching each of these benchmarks compared to 62% and 21% of pupils who reported being bullied *about monthly*, forming a difference of nine percentage points in both cases. Percentage differences between pupils who experienced bullying *never or almost never* and pupils who experienced bullying *about weekly* were statistically significant across all benchmarks. These percentage differences were at their widest for at the High Benchmark, where 40% of pupils who reported being bullied *about weekly* reached this benchmark in comparison to 71% of pupils who reported being bullied *never or almost never*.

Figure 5.16: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the *Student Bullying* scale (2021)



Source: Appendix Table A5.26.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

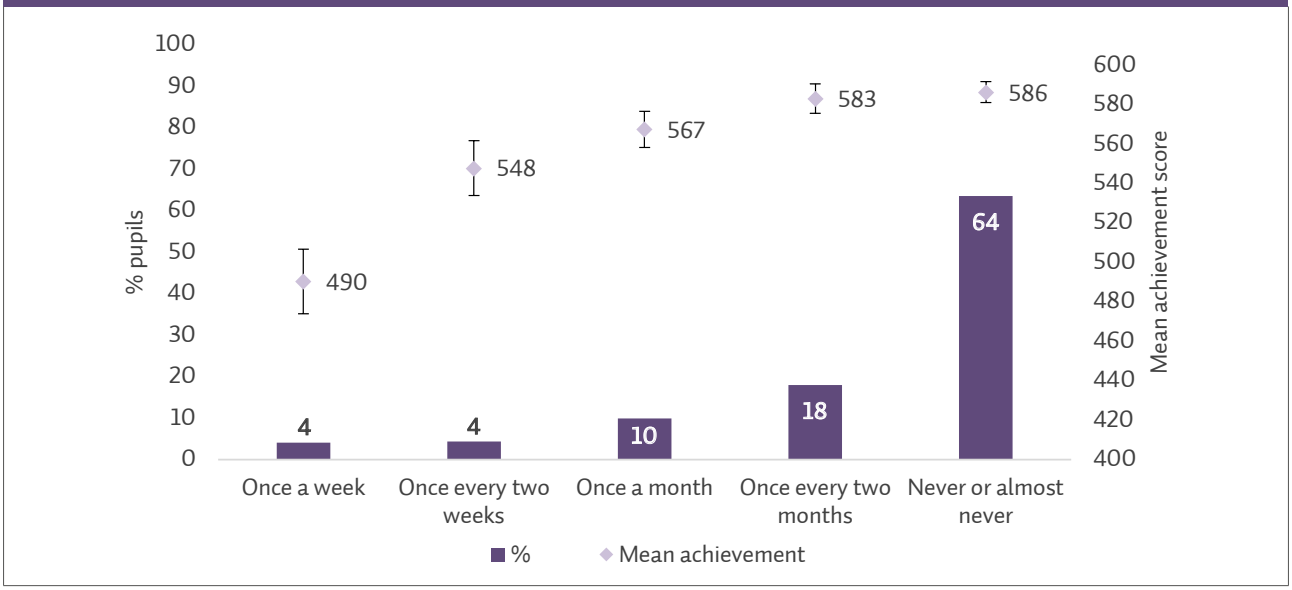
Both PIRLS 2011 and 2016 included a *Student Bullying* scale; however, the 2011 and 2016 scales were different to the corresponding 2021 scale.[36] This means that comparisons across the 2011, 2016, and 2021 scale data are not possible. However, comparisons of percentages across common scale components between 2016 and 2021 indicated a general pattern of slightly increased frequency in several bullying behaviours (additional information about the scale components across cycles can be found in Appendix Table A5.27).

Pupil absence

Pupils were asked about the frequency with which they were absent from school, with response options ranging from *once a week* to *never or almost never*. Figure 5.17 shows the percentages and mean achievement of pupils who are absent from school *once a week*, *once every two weeks*, *once a month*, *once every two months*, and *never or almost never* in Ireland in 2021. Approximately two-thirds of pupils reported that they were *never or almost never* absent from school, 28% reported they were absent from school *once a month* or *every two months*, while 8% were absent from school either *once every two weeks* or weekly. Overall, more frequent absence was associated with lower reading achievement. Pupils who reported being absent from school *once a week* achieved the lowest mean PIRLS score (490), which was statistically significantly lower than the score of their peers who were *never or almost never* absent from school (586), but also the scores of the rest of their peers in the other categories.

36 In 2011, the scale included six questions, in 2016, this rose to eight questions, and the 2021 scale included 10 questions; however, there was variation in the questions across cycles.

Figure 5.17: Percentages and mean achievement of pupils in Ireland by pupil absence, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A5.28.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 5.8 shows the percentages and mean achievement of pupils by the frequency with which they are absent from school in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. The frequency with which pupils were absent from school varied to some extent across the countries as did the magnitude of mean differences between the *once a week* and *never or almost never* categories. The highest percentage of pupils being absent *once a week* was noted in New Zealand (13%), and the lowest was noted in Hong Kong (2%). Accordingly, Hong Kong had the highest percentage of pupils at the *never or almost never* category (89%), a percentage that was 25 percentage points higher than the corresponding percentage in Ireland. Mean differences across all countries were statistically significant and in favour of the *never or almost never* category.

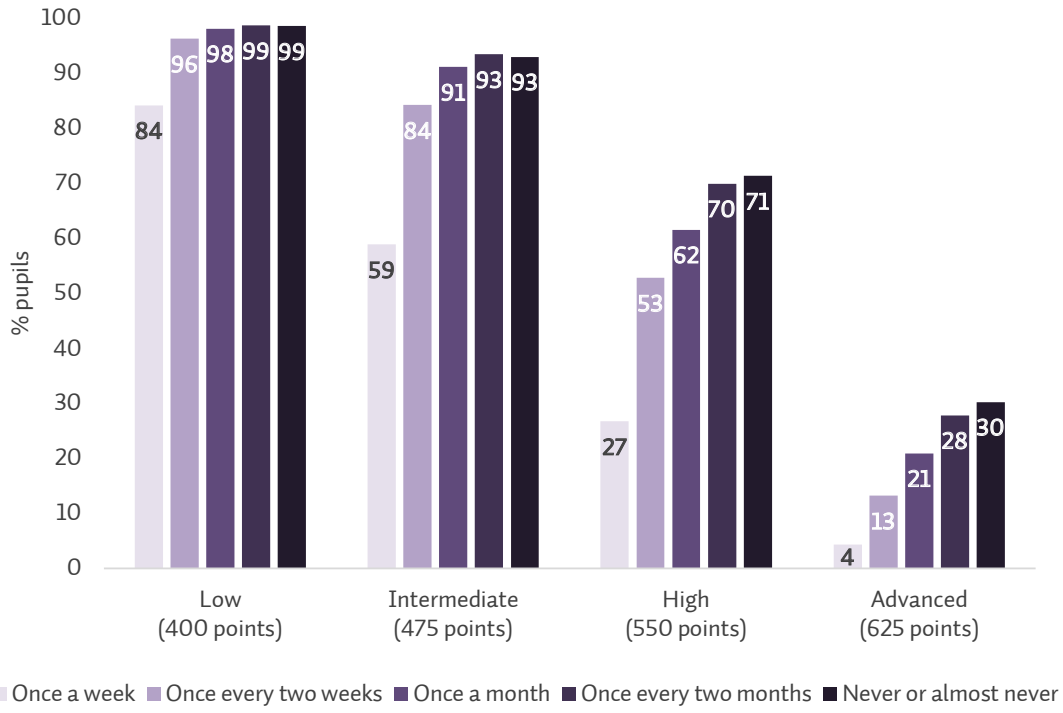
Table 5.8: Percentages and mean reading achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by pupil absence (2021)

		Overall mean	Once a week		Once every two weeks		Once a month		Once every two months		Never or almost never	
			%	Mean	%	Mean	%	Mean	%	Mean	%	Mean
Start G5	Ireland	577	4	490	4	548	10	567	18	583	64	586
	Northern Ireland	566	4	485	3	535	6	546	13	571	74	574
	Croatia	557	6	500	3	536	10	556	13	561	67	563
	Lithuania	552	7	508	3	530	7	554	8	564	75	557
End G4	Australia ⋈	540	7	473	5	515	12	542	17	548	60	549
	England ⋈	558	5	488	4	532	8	553	18	565	65	564
	Hong Kong SAR	573	2	~	1	~	1	~	7	561	89	578
	Poland	549	9	488	4	527	7	551	11	551	70	559
	Finland	549	5	490	5	525	14	553	28	556	47	554
	New Zealand	521	13	446	7	504	10	542	15	543	55	535
	Singapore	587	5	481	2	~	4	554	8	575	81	599
	PIRLS	503	11	448	4	468	7	491	11	507	67	515

Source: Appendix Table A5.28.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the frequency with which they were absent from school are shown in Figure 5.18. Very substantial differences were noted between the *once a week* category and the rest of the categories, especially the *never or almost never* category. Pupils in the *once a week* category had a statistically significant disadvantage compared to the rest of their peers across all four benchmarks, with this disadvantage ranging between 12 and 15 percentage points at the Low Benchmark to between nine and 26 percentage points at the Advanced Benchmark.

Figure 5.18: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by pupil absence (2021)



Source: Appendix Table A5.29.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

The question related to pupil absence was included in the 2016 but not in the 2011 pupil questionnaire. While the percentage of pupils being *never or almost never* absent seems to have decreased between 2016 (71%) and 2021 (64%), this may be linked with the fact that the *once every two months* response was not available in 2016 as opposed to 2021, and so pupils who would be in the *never or almost never* category in 2016, were in the *once every two months* category in 2021. With this caveat in mind, the mean differences between pupils who were absent from school *once a week* and those who were *never or almost never* absent seemed to widen between 2016 and 2021 (by eight score points) (see Appendix Table A5.30).

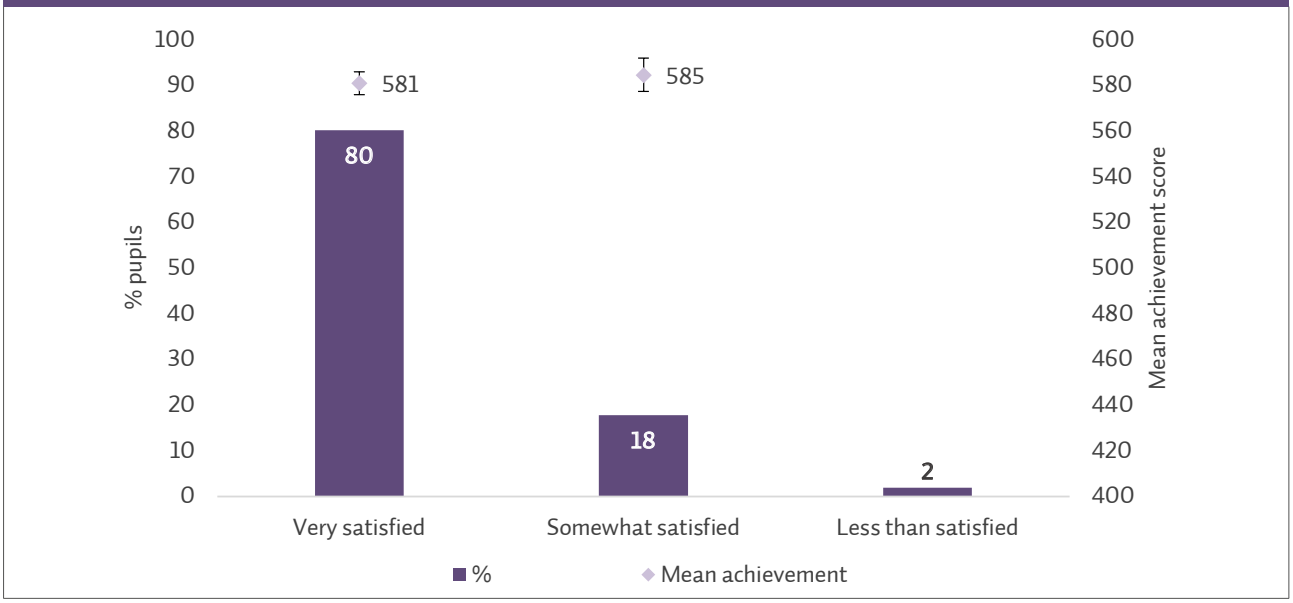
Parents' perceptions of their child's school

Parents of PIRLS pupils were asked to report their level of agreement with six statements related to their child's school: *My child's school does a good job including me in my child's education*; *My child's school provides a safe environment*; *My child's school cares about my child's progress in school*; *My child's school does a good job informing me of my child's progress*; *My child's school promotes high academic standards*; *My child's school does a good job of helping my child become better at reading*. Parents' responses were used to create the PIRLS *Parents' Perceptions of their Child's School* scale, on the basis of which, pupils were categorised as having parents who were *very satisfied*, *somewhat satisfied*, or *less than satisfied* with their school.

Figure 5.19 shows the percentages and mean achievement of pupils in each category of the PIRLS *Parents' Perceptions of their Child's School* scale in Ireland in 2021. Four-fifths of pupils had parents who were *very satisfied* with their school, while 18% had parents that were *somewhat satisfied*. Less than 2% of pupils in Ireland had parents who reported being *less than satisfied* with their child's school. Pupils whose parents were *very satisfied* with their school achieved a mean PIRLS score of 581 points, which was slightly, but not statistically significantly, lower than

that of their peers whose parents were *somewhat satisfied* (585). Due to the small number of pupils and resulting error margins, the estimate of mean achievement for pupils in the *less than satisfied* category is not reported as no clear conclusions can be drawn about their relative performance.

Figure 5.19: Percentages and mean achievement of pupils in Ireland by the *Parents' Perceptions of Their Child's School* scale, with confidence intervals around estimates of achievement (2021)



Source: Appendix Table A5.31.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Mean achievement is not reported for the *less than satisfied* category due to insufficient data.

Table 5.9 shows the percentages and mean achievement of pupils in each category of the PIRLS *Parents' Perceptions of their Child's School* scale in Ireland, selected reference countries, and on average across all PIRLS countries in 2021. Ireland (80%) and Northern Ireland (81%) had the highest proportions of pupils whose parents were *very satisfied* with their school across the countries. Among the reference countries, the mean differences between pupils whose parents reported being *very satisfied* and those whose parents were *less than satisfied* with their school ranged from five points in Croatia to 30 in Singapore.

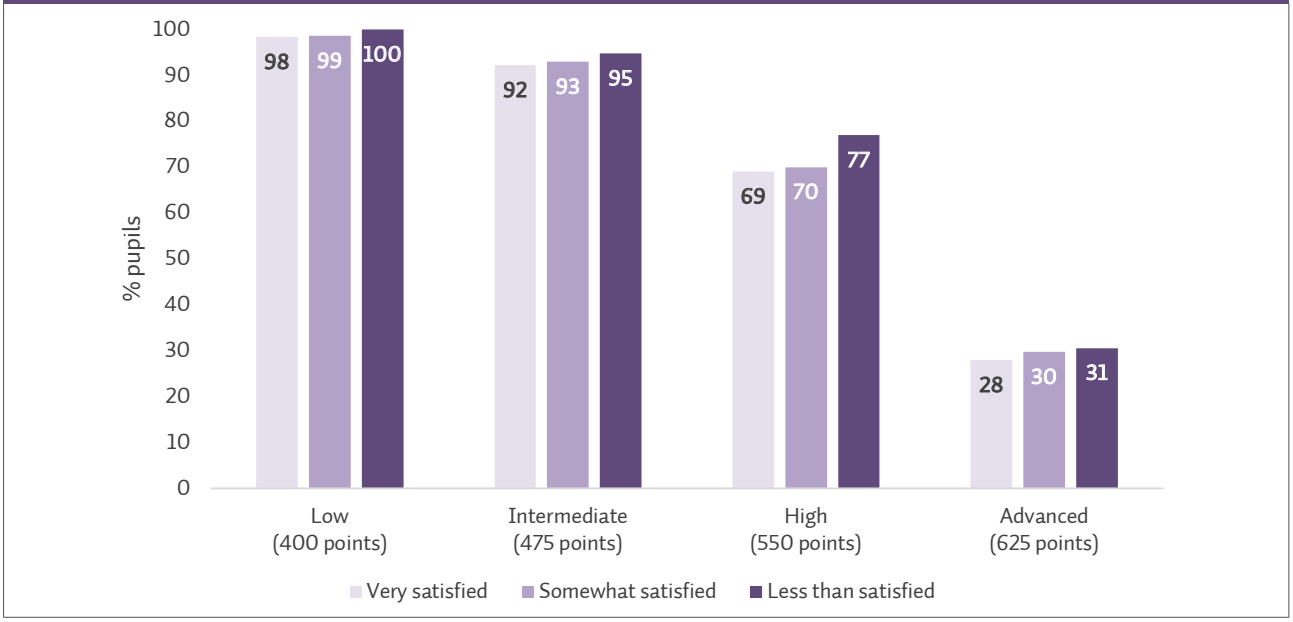
Table 5.9: Percentages and mean achievement of pupils in Ireland, selected reference countries, and on average across all PIRLS countries, by the *Parents' Perceptions of Their Child's School* scale (2021)

		Overall mean	Very satisfied		Somewhat satisfied		Less than satisfied	
			%	Mean	%	Mean	%	Mean
Start G5	Ireland	577	80	581	18	585	2	~
	Northern Ireland	566	81	579	17	566	2	~
	Croatia	557	44	556	50	559	6	561
	Lithuania	552	54	576	38	561	8	568
End G4	Australia ⋈	-	-	-	-	-	-	-
	England ⋈	-	-	-	-	-	-	-
	Hong Kong SAR	573	67	578	30	569	3	551
	Poland	549	50	546	45	555	5	554
	Finland	549	62	557	35	546	3	532
	New Zealand	521	67	544	28	538	5	536
	Singapore	587	70	596	27	584	3	566
	PIRLS	503	70	506	26	502	4	491

Source: Appendix Table A5.31.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. PIRLS average is based on 54 rather than 57 countries as data on parents' perceptions of their child's school were not available for Australia, England, and the United States.
Countries in *italics* took the test on computer, while those not in italics took it on paper.
⋈ Country tested one year later than planned (autumn 2021 for southern hemisphere countries; spring 2022 for northern hemisphere countries).
~ Mean achievement is not reported due to insufficient data.
- Data are not available.

The cumulative percentages of pupils in Ireland reaching each of the four International Benchmarks by the PIRLS *Parents' Perceptions of their Child's School* scale are shown in Figure 5.20. As mentioned above, provided that only 2% of pupils belonged to the *less than satisfied* category, comparisons of the cumulative percentages of pupils reaching each of the four International Benchmarks for this category should be avoided. Percentage differences between pupils whose parents were *very satisfied* with their school and pupils whose parents were *somewhat satisfied* with their school were not found to be statistically significantly different at any of the International Benchmarks.

Figure 5.20: Cumulative percentages of pupils in Ireland reaching each International Benchmark, by the *Parents' Perceptions of Their Child's School* scale (2021)



Source: Appendix Table A5.32.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Both PIRLS 2011 and 2016 included a *Parents' Perceptions of their Child's School* scale; however, the 2011 scale was slightly different to the corresponding 2016 and 2021 scales.[37] This means that comparisons are only possible between the 2016 and 2021 data (additional information about the scale components across cycles can be found in Appendix Table A5.34). Mean differences between pupils whose parents were *very satisfied* with their school and pupils whose parents were *less than satisfied* with their school seemed to remain small and not statistically significant between 2016 and 2021, while percentages for each category were relatively stable across cycles (see Appendix Table A5.33).

Chapter summary

This chapter focused on the relationships of selected school characteristics with the reading achievement, overall and across the four PIRLS subscales, of pupils in Ireland. Ireland's data were compared to those of selected reference countries and the corresponding averages across all PIRLS countries and data from PIRLS 2011 and 2016 were also compared to those from 2021, where appropriate. As noted in Chapter 1, PIRLS 2021 data must be interpreted in the context of important caveats, which are particularly relevant for countries that tested at Start G5 (including Ireland).

Over half of pupils in Ireland attended schools where more than 90% of pupils spoke English (the language of the PIRLS assessment) as their native language, with a further third of pupils in schools where between 51-90% of pupils spoke English as their native language. Although there was some variation across categories, the highest achievement scores were noted for pupils attending schools where more than 90% of pupils spoke English as their native language. Overall, a similar pattern was found for some comparison countries such as Northern Ireland, Hong Kong, and Finland.

37 In 2011, the scale included eight questions. For 2016 and 2021, this was reduced to six questions. However, for 2011, the questions were different to those in 2016 and 2021.

Regarding literacy readiness, the majority of pupils in Ireland attended a school where more than 75% of pupils had basic literacy skills at the beginning of First Class. While reading achievement scores for pupils attending schools with greater proportions of pupils with basic literacy skills at the beginning of First Class generally tended to be higher, attending a school with a lower proportion of pupils with basic literacy skills was not necessarily associated with lower reading achievement, as pupils who attended schools where less than 25% of pupils had basic literacy skills at this point had a relatively high mean score that was not statistically significantly different from that of pupils attending schools where more than 75% of pupils had such skills.

Over two-fifths of pupils in Ireland attended schools with *more affluent* pupils, while a third of pupils attended schools classified as *neither more affluent nor more disadvantaged*. Pupils who attended schools with *more affluent* pupils achieved statistically significantly higher mean scores than those of the rest of their peers. The mean achievement differences between pupils from schools with *more affluent* pupils and *more disadvantaged* pupils slightly decreased between 2016 and 2021. Regarding the International Benchmarks, statistically significant differences were evident between pupils at schools with *more affluent* pupils and *more disadvantaged* pupils across all International Benchmarks, favouring the former group. Notably, over twice as many pupils attending a school with *more affluent* pupils reached the Advanced Benchmark in comparison to pupils who attended a school with *more disadvantaged* pupils.

In Ireland, over half of pupils attended a school that had a library; and of those pupils, two-fifths had *more than 2,000* print books with different titles available, with the majority of pupils being able to borrow both print and digital materials to take home with them. Compared to 2021, slightly fewer pupils had a library in 2011, while more pupils had a school library in 2016. The percentage of pupils who were able to take materials home from school decreased between 2016 and 2021, a finding that should be interpreted in the context of the COVID-19 pandemic and associated restrictions. Although not statistically significantly so, mean reading achievement was slightly higher for pupils who did not have a school library in their school. Among pupils who had a library, those who had *more than 2,000* printed books with different titles and could borrow books to take home tended to achieve higher scores than their peers; however, again none of these differences were statistically significant.

Four out of five pupils in Ireland attended a school where there were digital learning resources available to them. Although this proportion was similar to that of the PIRLS average, Ireland was found to have the lowest proportion of pupils attending schools in which digital learning resources were available across the reference countries. Pupils in Ireland who did not have access to digital learning resources at school achieved a slightly higher mean score than pupils who attended schools where such resources were available, with this pattern also being noted for a few of the reference countries.

Approximately three-quarters of pupils in Ireland attended a school judged by their teachers as being *very safe and orderly*, with another fifth attending a *somewhat safe and orderly* school. Only 2% of pupils were in schools judged to be *less than safe and orderly*. Pupils who attended schools categorised as *very safe and orderly* achieved higher mean PIRLS scores than those of their peers who attended *somewhat* or *less than safe and orderly* schools. Percentage differences between the *very safe and orderly* and *somewhat safe and orderly* categories were statistically significant across all International Benchmarks, with the former tending to have an advantage compared to the latter.

Most pupils in Ireland attended a school with *hardly any problems*, while one in five pupils were at schools with *minor problems*. Less than 2% of pupils in Ireland attended a school with *moderate to severe problems*. Pupils who attended a school with *hardly any problems* achieved statistically significantly higher mean scores than those of their peers. There were statistically significant percentage differences between pupils attending schools regarded as having *hardly any problems* and those with *minor problems* across all International Benchmarks, with statistically significantly higher proportions of pupils who attended schools that had *hardly any problems* reaching each of the benchmarks. Mean differences between pupils attending schools with *hardly any problems* and those with *minor problems* and *moderate to severe problems* were also statistically significant in previous PIRLS cycles.

In Ireland, a fifth of pupils attended a school with a *very high emphasis* on academic success, just under three-fifths were at schools with a *high emphasis*, and another fifth attended schools with a *medium emphasis* on academic success. Pupils at schools with a *very high emphasis* on academic success achieved a higher mean score compared to their peers, with only the latter difference being statistically significant. Mean differences between pupils in schools with a *very high emphasis* and pupils in schools with a *medium emphasis* seemed to decrease between 2016 and 2021, while the percentages of pupils reported to be in schools with a *medium emphasis* on academic success increased statistically significantly from 2016 to 2021. Although percentage differences between pupils in schools with a *very high emphasis* and a *high emphasis* on academic success widened with every International Benchmark, none of the differences were statistically significant. The percentage differences of pupils in schools with a *very high emphasis* on academic success and a *medium emphasis* were statistically significant across all benchmarks except for the Low Benchmark. Notably, at the Advanced Benchmark, over twice as many pupils from schools with a *very high emphasis* reached this benchmark, in comparison to pupils from schools with a *medium emphasis* on academic success.

More than half of pupils in Ireland reported having a *high sense of school belonging*, and just over a third reported having *some sense of school belonging*. Only 8% of pupils reported having *little sense of school belonging*. Pupils with a *high sense of school belonging* achieved a statistically significantly higher mean score than that of their peers with *little sense of school belonging*. This pattern was also evident internationally, though overall, the difference was larger in magnitude in Ireland compared to most of the reference countries, with Ireland having the second largest difference in achievement between these two categories. Percentage differences at the International Benchmarks between pupils with a *high* and *some sense of school belonging* categories were only statistically significant at the High and Advanced Benchmarks, while percentage differences between pupils with a *high* or *little sense of school belonging* were statistically significant across all benchmarks except for the Low Benchmark.

In Ireland, just under three-quarters of pupils reported *never or almost never* being bullied, a fifth reported being bulled *about monthly,* while a small percentage reported being bullied *about weekly*. Pupils who reported *never or almost never* being bullied achieved a statistically significantly higher mean PIRLS score than those of their peers. This pattern was evident in many reference countries. Percentage differences between pupils who *never or almost never* experienced bullying and those who experienced bullying *about monthly* were statistically significant across all benchmarks except for the Low Benchmark, while differences between pupils who *never or almost never* experienced bullying and those who experienced bullying *about weekly* were statistically significant across all benchmarks.

Approximately two-thirds of pupils in Ireland reported that they were *never or almost never* absent from school, over a quarter reported they were absent from school *once every month* or *every two months*, while a small percentage were absent from school at least *once every two weeks*. Overall, more frequent absence was associated with lower reading achievement, with pupils who reported being absent from school *once a week* achieving statistically significantly lower scores than their peers. The frequency with which pupils were absent from school varied across reference countries as did the magnitude of mean differences between the *once a week* and *never or almost never* categories. In 2021, the percentage of pupils *never or almost never* being absent seemed to decrease compared to 2016, while the mean achievement differences between pupils who were absent from school *once a week* and those who were *never or almost never* absent seemed to widen between the two cycles. However, this may have been due, at least in part, to changes in the categories of this question between the cycles. Considerable percentage differences were noted at the International Benchmarks between the *once a week* category and the rest of the categories.

Four out of five pupils in Ireland had parents who were *very satisfied* with their school, while just under a fifth had parents who were *somewhat satisfied*, and a very small percentage had parents who reported being *less than satisfied* with their child's school. Pupils whose parents were *very satisfied* with their school achieved a higher mean score, though not statistically significantly so, than their peers. Ireland had one of the highest proportions of pupils whose parents were *very satisfied* with their school when compared to the selected reference countries. Percentage differences at the International Benchmarks between pupils whose parents were *very satisfied* and pupils whose parents were *somewhat* or *less than satisfied* with their school were not found to be statistically significant at any benchmark.

PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

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CHAPTER 6

Chapter 6: Characteristics of Low-, Medium-, and High-Achieving Pupils in Reading

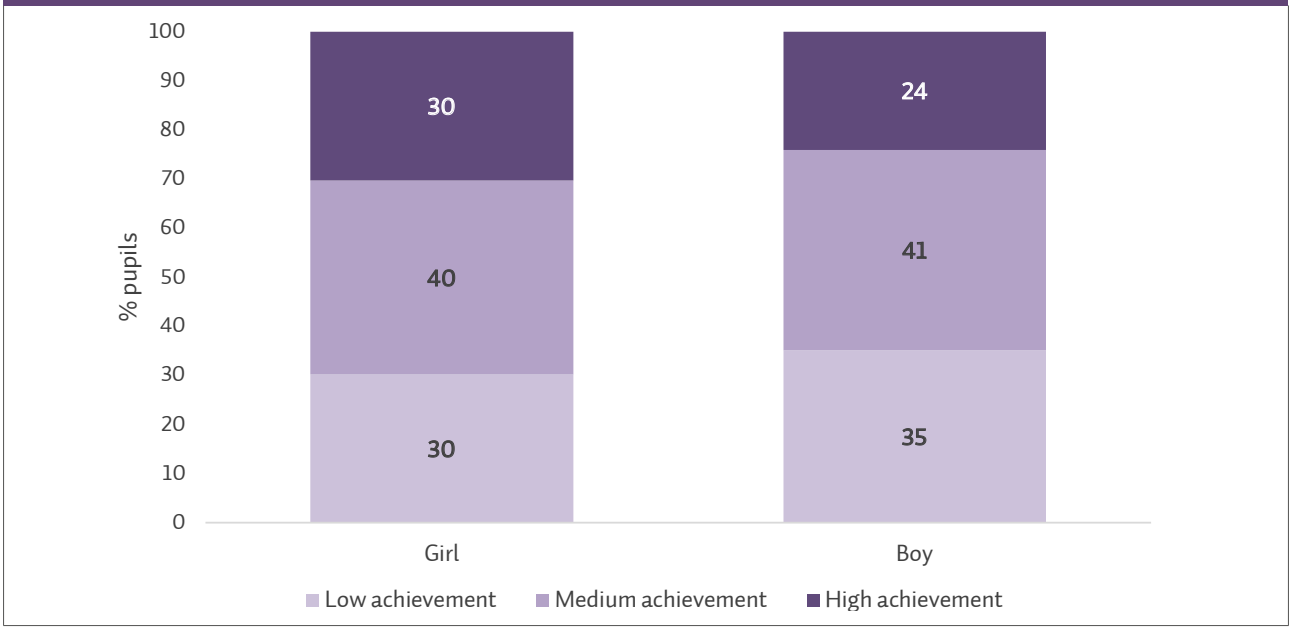
This chapter focuses on three groups of pupils that have been identified using the PIRLS International Benchmarks, which are the performance levels used to group pupils based on their reading achievement and describe the skills and strategies demonstrated by pupils at various levels of reading achievement. Specifically, the chapter explores the profiles of pupils that we define as low-, medium-, and high-achieving, relative to the population of pupils in Ireland as a whole. Low-achieving pupils are defined as those performing at the Below Low, Low, and Intermediate Benchmarks, medium-achieving pupils are defined as those performing at the High Benchmark, and high-achieving pupils are defined as those performing at the Advanced Benchmark. These categorisations reflect the strong overall level of reading achievement observed in Ireland, where the average score of 577 falls above the High Benchmark. Proportions of pupils in Ireland for the PIRLS 2021 cycle within each of these groups are presented by pupils' gender, their country of birth, the extent to which they were confident in and liked reading, their socioeconomic status, and their school DEIS status.[38]

Gender

Figure 6.1 shows the percentages of low-, medium-, and high-achieving pupils in Ireland in 2021 by their gender. Although approximately one-third of both girls (30%) and boys (35%) were low achievers in reading, the difference of five percentage points between the two genders was statistically significant, with boys more likely to be low achievers than girls. The difference of six percentage points at the high achievement group was also statistically significant, favouring girls, while girls and boys were equally likely to be medium achievers in reading.

38 Given that the DEIS Rural category of the school DEIS status variable includes 3.9% of the sample, estimates in this chapter related to this category should be interpreted with caution.

Figure 6.1: Percentages of low-, medium-, and high-achieving pupils in Ireland, by pupils' gender (2021)



Source: Appendix Table A6.1.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Country of birth

Figure 6.2 shows the percentages of low-, medium-, and high-achieving pupils in Ireland in 2021 by their country of birth. Although a slightly higher percentage of pupils born outside Ireland were low achievers in reading compared to their peers born in Ireland (35% vs 30%), this difference was not statistically significant, and neither were the differences within the other groups.

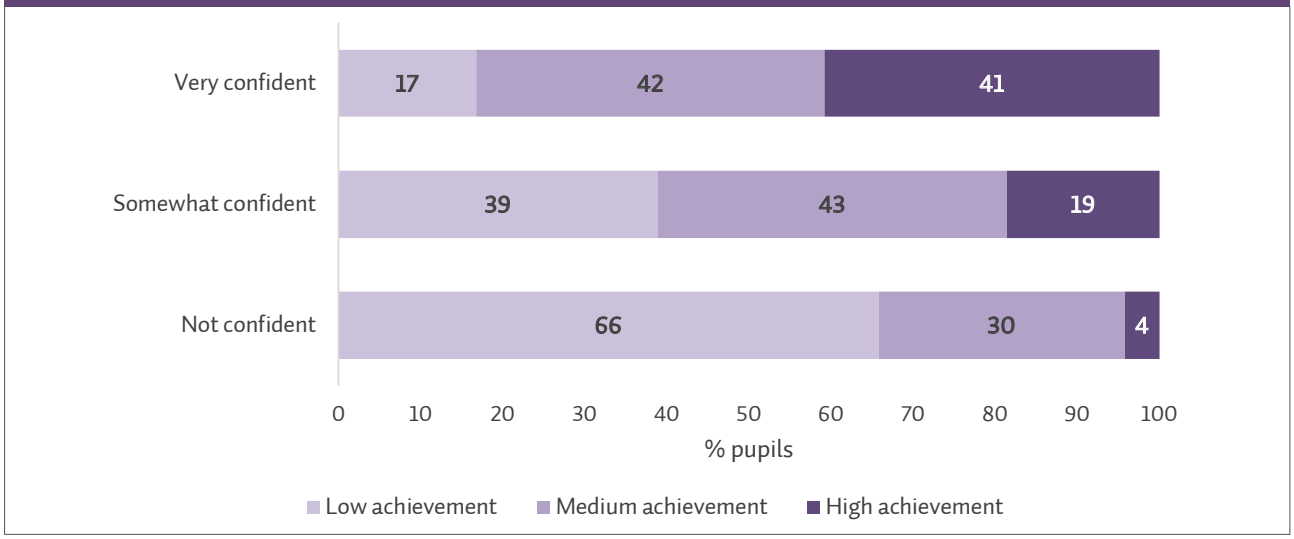
Figure 6.2: Percentages of low-, medium-, and high-achieving pupils in Ireland, by pupils' country of birth (2021)

Source: Appendix Table A6.2.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Confident in reading

Figure 6.3 shows the percentages of low-, medium-, and high-achieving pupils in Ireland in 2021 by the extent to which they were confident in reading. *Very confident* pupils were statistically significantly less likely to be low achievers in reading than their *somewhat confident* and *not confident* peers, with 17%, 39%, and 66% of pupils within each of these categories being low achievers, respectively. Although differences were less pronounced within the medium achievement group, *very confident* pupils were, again, more likely than their *not confident* peers to belong to that group. *Very confident* pupils were statistically significantly more likely to be high achievers in reading than their *somewhat confident* and *not confident* peers. Specifically, the proportion of *very confident* pupils within the high achievement group (41%) was more than double the corresponding proportion among *somewhat confident* pupils (19%) and more than 10 times the corresponding proportion among *not confident* pupils (4%).

Figure 6.3: Percentages of low-, medium-, and high-achieving pupils in Ireland, by the extent to which they were confident in reading (2021)

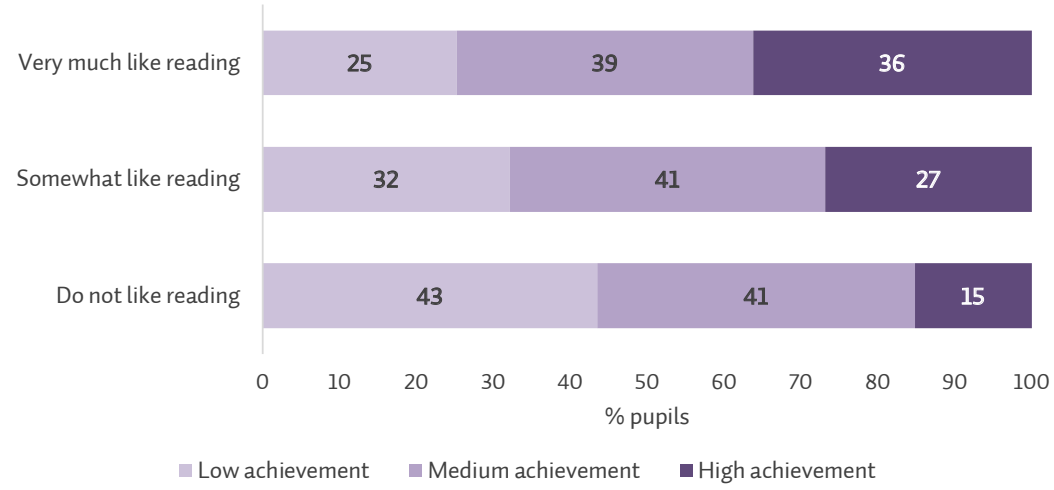


Source: Appendix Table A6.3.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Liking reading

Figure 6.4 shows the percentages of low-, medium-, and high-achieving pupils in Ireland in 2021 by the extent to which they liked reading. Pupils who *very much like reading* were statistically significantly less likely to be low achievers in reading than their peers who *somewhat like reading* and *do not like reading*, with 25%, 32%, and 43% of pupils within each of these categories being low achievers, respectively. Differences were less pronounced within the medium achievement group, with similar percentages of pupils who *very much like reading*, *somewhat like reading*, and *do not like reading* belonging to that group. Pupils who *very much like reading* were statistically significantly more likely to be high achievers in reading than their peers who *somewhat like reading* and *do not like reading*. Specifically, the proportion of the pupils who *very much like reading* who were high achievers (36%) was nine percentage points higher than the corresponding proportion among pupils who *somewhat like reading* (27%) and more than double the corresponding proportion among pupils who *do not like reading* (15%).

Figure 6.4: Percentages of low-, medium-, and high-achieving pupils in Ireland, by the extent to which they liked reading (2021)

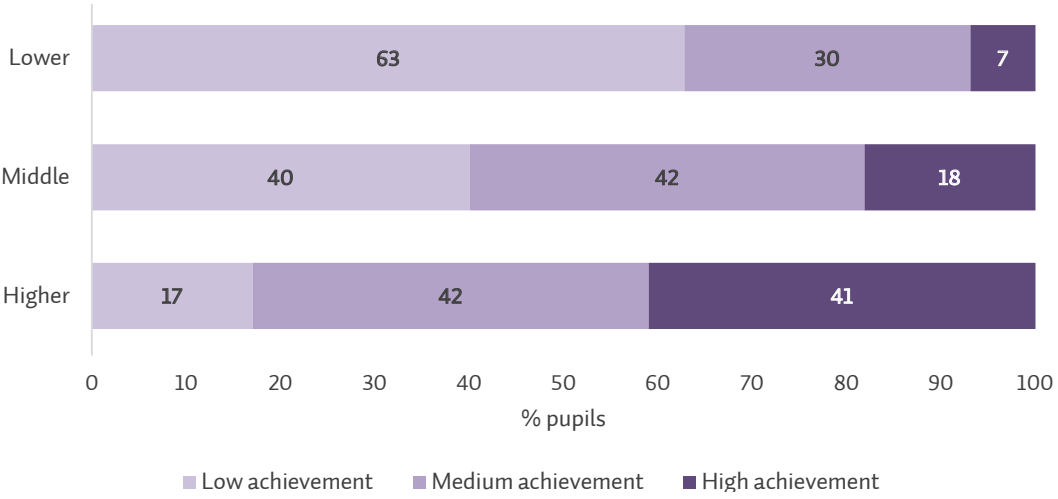


Source: Appendix Table A6.4.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Socioeconomic status

Figure 6.5 shows the percentages of low-, medium-, and high-achieving pupils in Ireland in 2021 by their socioeconomic status group (as indicated by the internationally defined categories of the PIRLS *Home Socioeconomic Status* index). Notably, 63% of pupils in the *lower* socioeconomic group were low achievers in reading, with this percentage decreasing to 40% among pupils in the *middle* socioeconomic group and 17% among pupils in the *higher* socioeconomic group. Looking at the upper end of the achievement distribution, only 7% of pupils in the *lower* socioeconomic group were high achievers in reading. This percentage was more than double among pupils in the *middle* socioeconomic group (18%), while four out of 10 pupils in the *higher* socioeconomic group were high achievers in reading. All differences between the *higher* and the other two socioeconomic groups were statistically significant except for the one with the *middle* socioeconomic group within the medium achievement group.

Figure 6.5: Percentages of low-, medium-, and high-achieving pupils in Ireland, by pupils' socioeconomic status (2021)

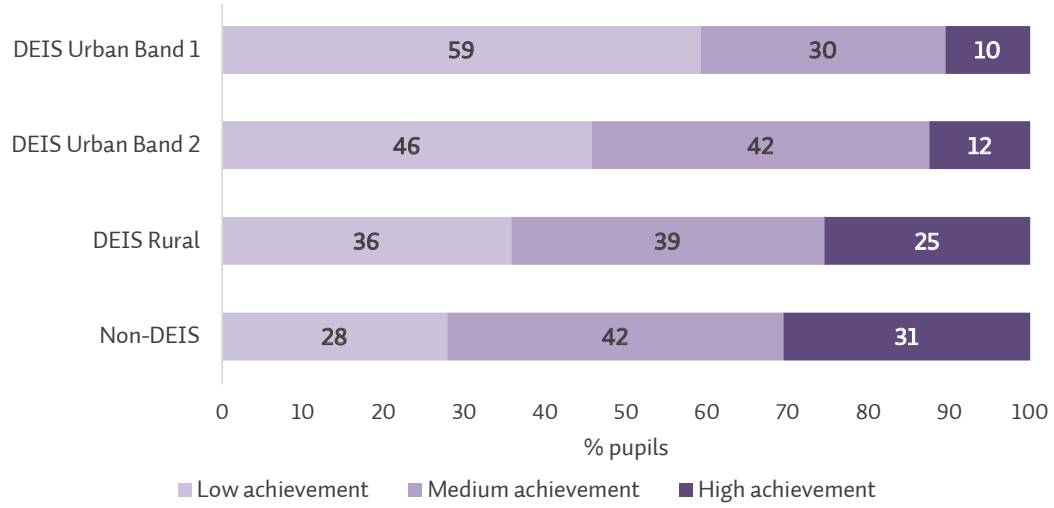


Source: Appendix Table A6.5.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

School DEIS status

Figure 6.6 shows the percentages of low-, medium-, and high-achieving pupils in Ireland in 2021 by their school's DEIS status. Pupils attending non-DEIS schools were statistically significantly less likely to be low achievers and more likely to be high achievers in reading compared to their peers attending DEIS Urban schools (Band 1 and Band 2), with differences being more pronounced for DEIS Urban Band 1 schools. Among pupils attending non-DEIS schools, 28% were low achievers and 31% were high achievers in reading, while, among pupils attending DEIS Urban schools, between 46% and 59% were low achievers and between 10% and 12% were high achievers in reading. Although pupils attending DEIS Rural schools were slightly (though not statistically significantly) more likely to be low achievers and slightly (though, again, not statistically significantly) less likely to be high achievers in reading compared to their peers attending non-DEIS schools, estimates for this category should be interpreted with caution due to the low numbers of pupils comprising it.

Figure 6.6: Percentages of low-, medium-, and high-achieving pupils in Ireland, by school DEIS status (2021)



Source: Appendix Table A6.6.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Chapter summary

In this chapter, an analysis of PIRLS 2021 data for Ireland focusing on the profiles of low-, medium-, and high-achieving pupils (defined with reference to overall national performance) was presented. Results indicated that pupils' gender, the extent to which they were confident in and liked reading, their socioeconomic status, and their school's DEIS status were related to their chances of belonging to the low, medium, or high achievement group in reading, while their country of birth was not related to their chances of belonging to one of these groups. Specifically, girls, pupils who were *very confident* in reading, those who very much liked reading, those in the *higher* socioeconomic group, and those attending non-DEIS schools were statistically significantly less likely to be low achievers and statistically significantly more likely to be high achievers in reading compared to boys, pupils who were *somewhat* or *not confident* in reading, those who somewhat liked or did not like reading, pupils in the *middle* and *lower* socioeconomic groups, and those attending DEIS Urban schools, respectively.

PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

Vasiliki Pitsia, Sarah McAteer, Gráinne McHugh, and Emer Delaney

Educational Research Centre

CHAPTER 7

Chapter 7: Pupils' Wellbeing, School-Related Experiences, Reading Attitudes and Behaviours

This chapter focuses on data from the PIRLS pupil questionnaire about pupils' wellbeing, school-related experiences, and reading attitudes and behaviours. Ireland's data for 2021 are presented by different variables including pupils' gender (*girl/boy*), their country of birth (*Ireland/other*), their socioeconomic status (*lower/middle/higher*), and school DEIS status (*DEIS Urban Band 1/ DEIS Urban Band 2/DEIS Rural/non-DEIS*). Findings in this chapter build on findings reported in the PIRLS 2021 national report by Delaney et al. (2023) and in Chapters 3 and 5 of this report, where overall proportions are provided and relationships of these variables with achievement are examined.

Wellbeing and school-related experiences

This section includes pupil absence, arriving at school tired and hungry, bullying, and sense of school belonging. These variables related to pupils' wellbeing and school-related experiences are explored by pupils' gender, country of birth, socioeconomic status, and school DEIS status.[39]

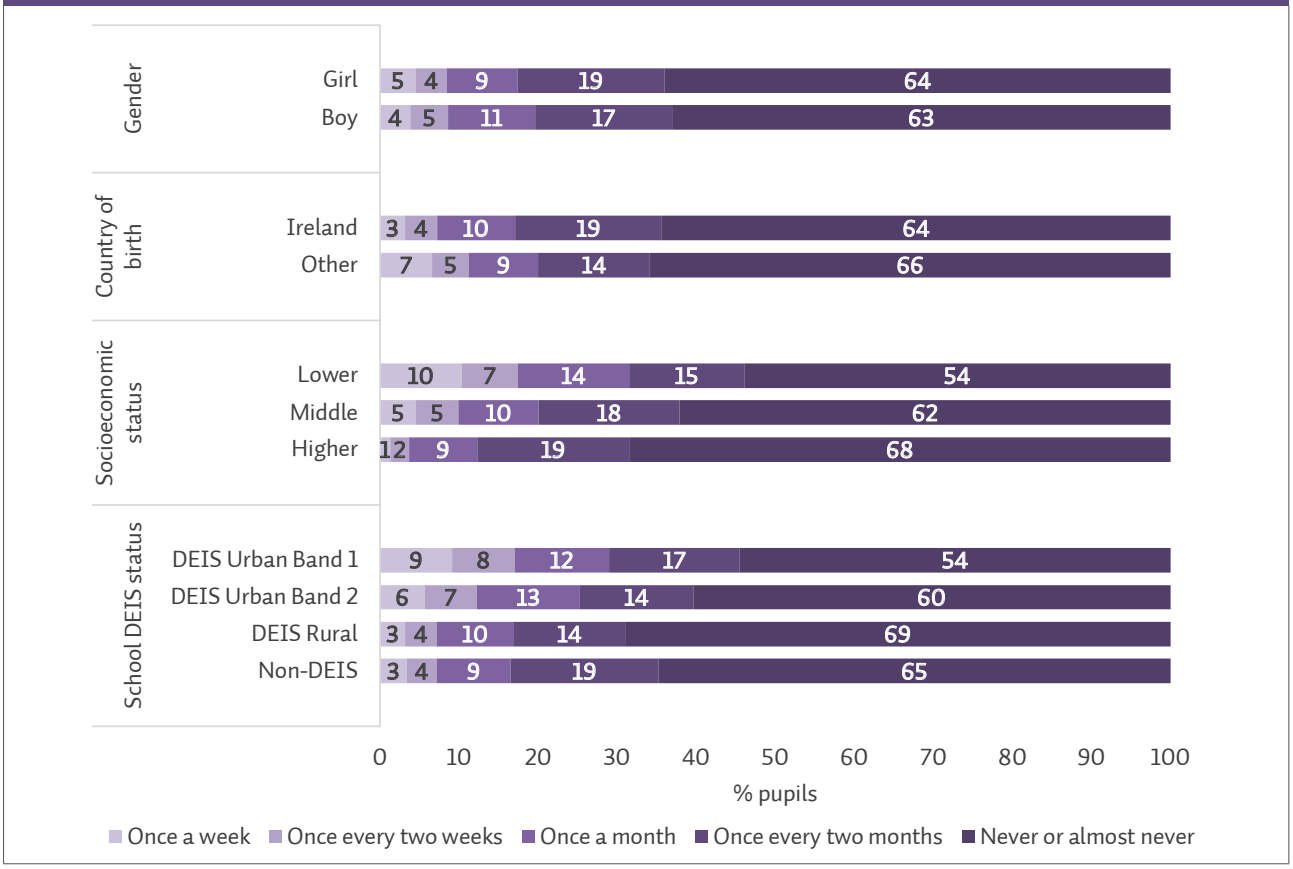
Pupil absence

As part of the pupil questionnaire, pupils were asked about the frequency with which they are absent from school. The five response options were *once a week, once every two weeks, once a month, once every two months*, and *never or almost never*.

Figure 7.1 presents the percentages of pupils in Ireland by the frequency with which they were absent from school, by gender, country of birth, and socioeconomic status, and school DEIS status. Looking at pupil absence by gender, boys and girls did not statistically significantly differ in the frequency with which they were absent from school. Pupils born outside of Ireland were somewhat more likely to be absent *once a week* than their peers born in Ireland, though this difference was not statistically significant. The proportions of pupils who were absent *once a week* and *once every two weeks* were statistically significantly higher in the *lower* and *middle* socioeconomic groups than in the *higher* socioeconomic group. Accordingly, the proportion of pupils in the *higher* socioeconomic group who reported to *never or almost never* be absent from school (68%) was statistically significantly above the corresponding proportion in the *lower* socioeconomic group (54%). The frequency with which pupils were absent from school seemed to also vary somewhat by school DEIS status. The proportions of pupils in DEIS Urban Band 1 schools who reported being absent *once a week* or *once every two weeks* (9% and 8%, respectively) were statistically significantly higher than the corresponding proportions in non-DEIS schools (3% and 4%, respectively). Also, statistically significantly higher proportions of pupils in non-DEIS schools reported *never or almost never* being absent (65%) compared to pupils in DEIS Urban Band 1 schools (54%).

39 Given that the DEIS Rural category of the school DEIS status variable includes 3.9% of the sample, estimates related to this category should be interpreted with caution.

Figure 7.1: Pupil absence by gender, country of birth, socioeconomic status, and school DEIS status (2021)



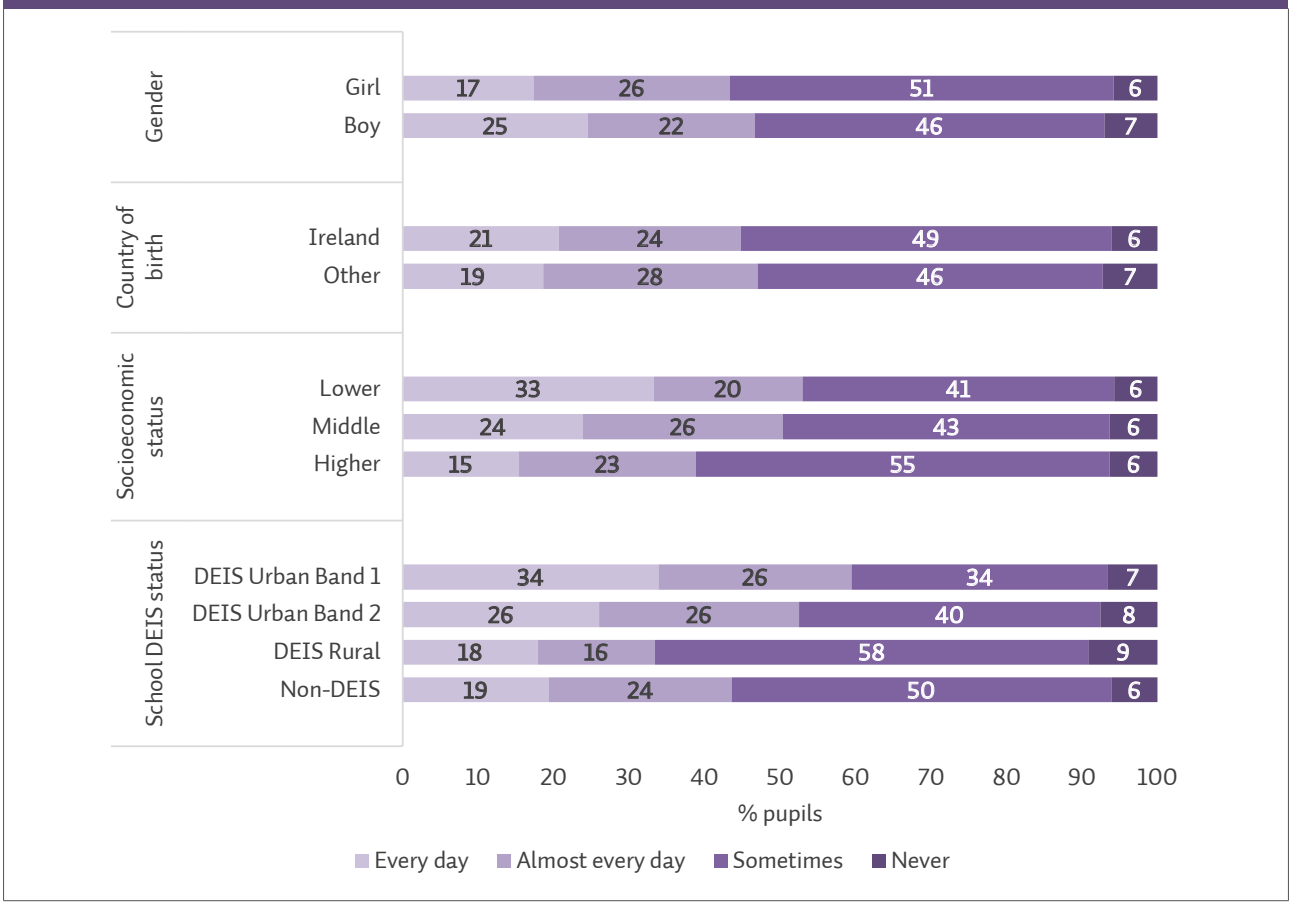
Source: Appendix Table A7.1 to A7.4.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Pupil feeling tired or hungry upon arrival at school

As part of the pupil questionnaire, pupils were asked about the frequency with which they felt tired or hungry upon school arrival, and the four response options were *every day*, *almost every day*, *sometimes*, and *never*.

Figure 7.2 presents the percentages of pupils feeling tired upon arriving at school by gender, country of birth, socioeconomic status, and school DEIS status. One-quarter of boys arrived at school feeling tired *every day*, which was statistically significantly higher than the corresponding proportion reported by girls (17%). Broadly similar proportions were reported across each of the response options for pupils who were born in Ireland and those born in another country. The *higher* socioeconomic group comprised of a statistically significantly lower proportion of pupils (15%) who reported feeling tired on arrival at school *every day* than the *middle* (24%) and *lower* (33%) socioeconomic groups. Similarly, the proportions of pupils in DEIS Urban schools who reported feeling tired on arrival at school *every day* (DEIS Urban Band 1: 34%; DEIS Urban Band 2: 26%) were statistically significantly higher than the corresponding proportion in non-DEIS schools (19%). However, the proportion in DEIS Rural schools in this response category (18%) was similar to the corresponding proportion in non-DEIS schools.

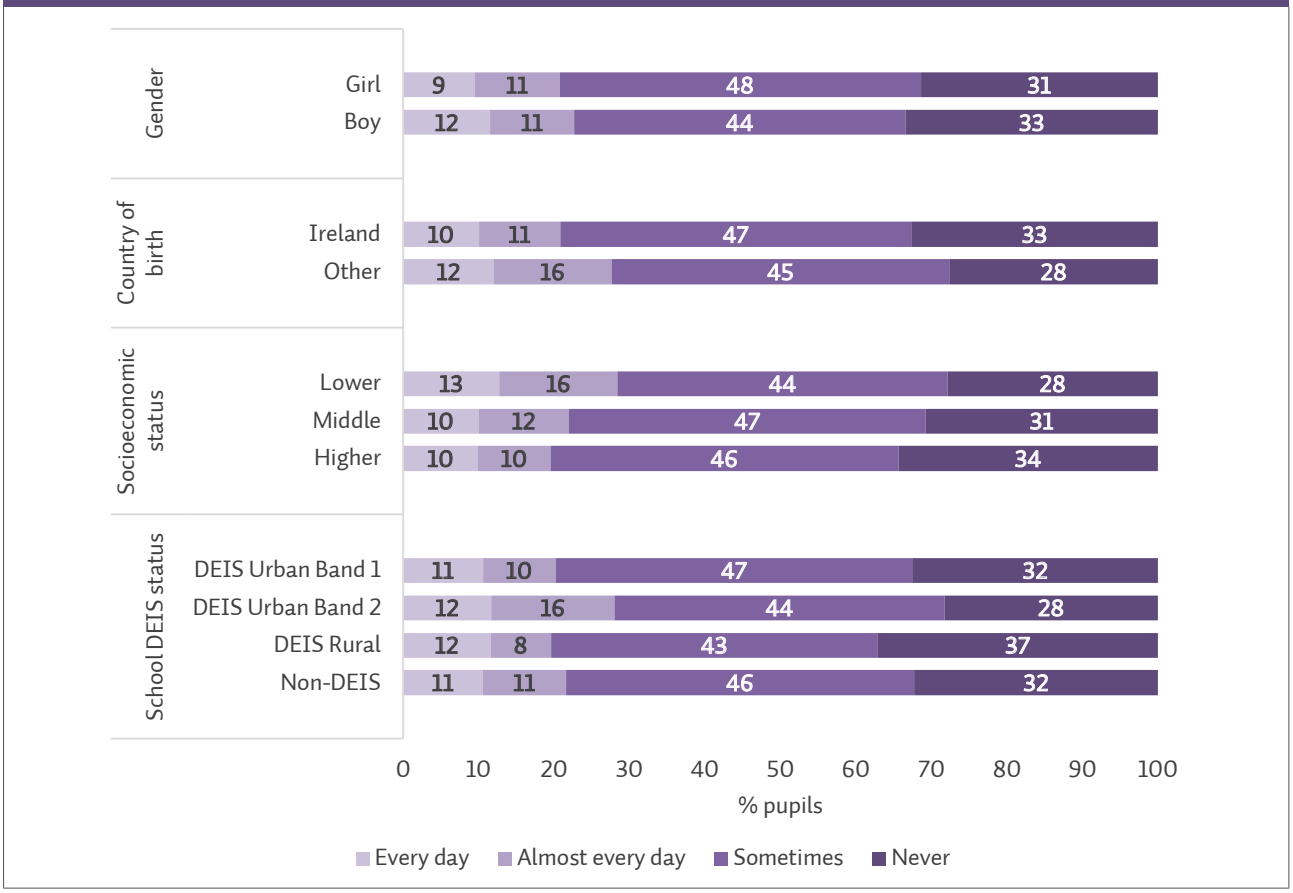
Figure 7.2: Frequency of feeling tired upon arriving at school by gender, country of birth, socioeconomic status, and school DEIS status (2021)



Source: Appendix Table A7.5 to A7.8.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 7.3 presents the percentages of pupils feeling hungry upon arriving at school by gender, country of birth, socioeconomic status, and school DEIS status. A slightly higher proportion of boys (12%) than girls (9%) reported feeling hungry *every day* when they arrived at school, though this difference was not statistically significant. Similarly, a slightly higher proportion of boys (33%) than girls (31%) reported *never* feeling hungry when they arrived at school but, again, this difference was not statistically significant. Pupils who were born in Ireland and those who were born outside Ireland did not statistically significantly differ in the frequency with which they feel hungry on arrival at school. Higher proportions of pupils in the *lower* socioeconomic group (13%) reported feeling hungry *every day* on arrival at school than those in the *middle* and *higher* groups (10%, respectively). There were no statistically significant differences in the frequency with which pupils arrived at school hungry by school DEIS status. Approximately one-third of pupils in DEIS Urban Band 1 (32%) and non-DEIS (32%) schools reported *never* feeling hungry on arriving at school. Slightly higher proportions were reported in DEIS Rural schools (37%), and slightly lower proportions were reported in DEIS Urban Band 2 school (28%), though none of these differences were statistically significant.

Figure 7.3: Frequency of feeling hungry upon arriving at school by gender, country of birth, socioeconomic status, and school DEIS status (2021)



Source: Appendix Table A7.9 to A7.12.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

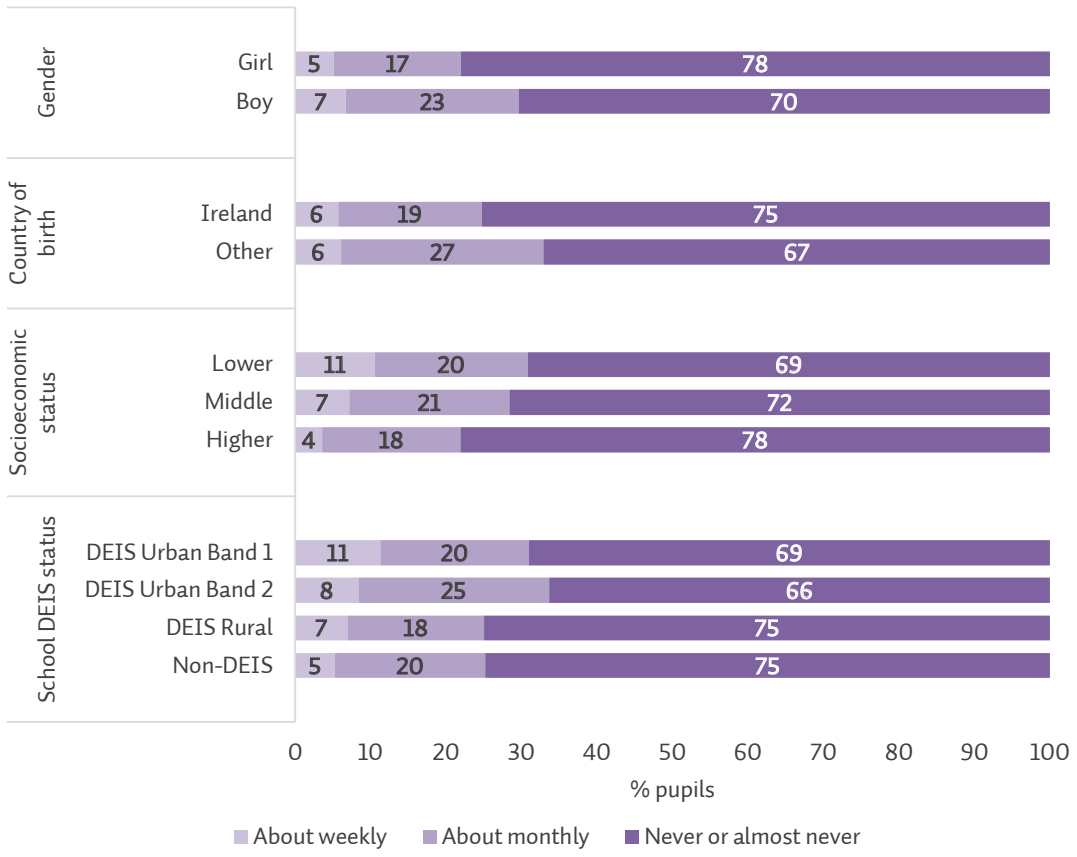
Pupil bullying

As mentioned in Chapter 5, PIRLS pupils were asked to report how often they experienced bullying in school. Pupils were asked how frequently they experienced 10 bullying behaviours: *Made fun of me or called me names*; *Left me out of their games or activities*; *Spread lies about me*; *Stole something from me*; *Damaged something of mine on purpose*; *Hit or hurt me (e.g., shoving, hitting, kicking)*; *Made me do things I didn't want to do*; *Sent me nasty or hurtful messages online*; *Shared nasty or hurtful information about me online*; *Threatened me*. Pupil responses were used to create the PIRLS *Student Bullying* scale, on the basis of which, pupils were grouped into three categories: *never or almost never*, *about monthly*, and *about weekly*.

Figure 7.4 presents the percentages of pupils by the frequency with which they experienced bullying behaviours by gender, country of birth, socioeconomic status, and school DEIS status. Boys (7%) were statistically significantly more likely to experience bullying *about weekly* than girls (5%), and girls (78%) were statistically significantly more likely than boys (70%) to *never or almost never* experience bullying. Looking at the proportions by country of birth, pupils born in Ireland were statistically significantly more likely to *never or almost never* experience bullying compared with pupils born outside of Ireland. There were large and statistically significant differences in the proportions of pupils who experienced bullying *about weekly* by their socioeconomic status. Less than 5% of pupils in the *higher* socioeconomic group reported experiencing bullying *about weekly*, which was statistically significantly below the corresponding proportions in the *middle* (7%) and *lower* (11%) groups. Similarly, pupils in the *higher* socioeconomic group were statistically significantly more likely to *never or almost*

never experience bullying when compared to pupils in the *lower* socioeconomic group. Over one-tenth of pupils (11%) in DEIS Urban Band 1 schools reported experiencing bullying *about weekly*, which was statistically significantly above the proportion reported in non-DEIS schools (5%). The proportions reported in DEIS Urban Band 2 schools (8%) and DEIS Rural schools (7%) were higher than the proportion in non-DEIS schools, though these differences were not statistically significant.

Figure 7.4: Pupils' bullying experiences by gender, country of birth, socioeconomic status, and school DEIS status (2021)



Source: Appendix Table A7.13 to A7.16.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

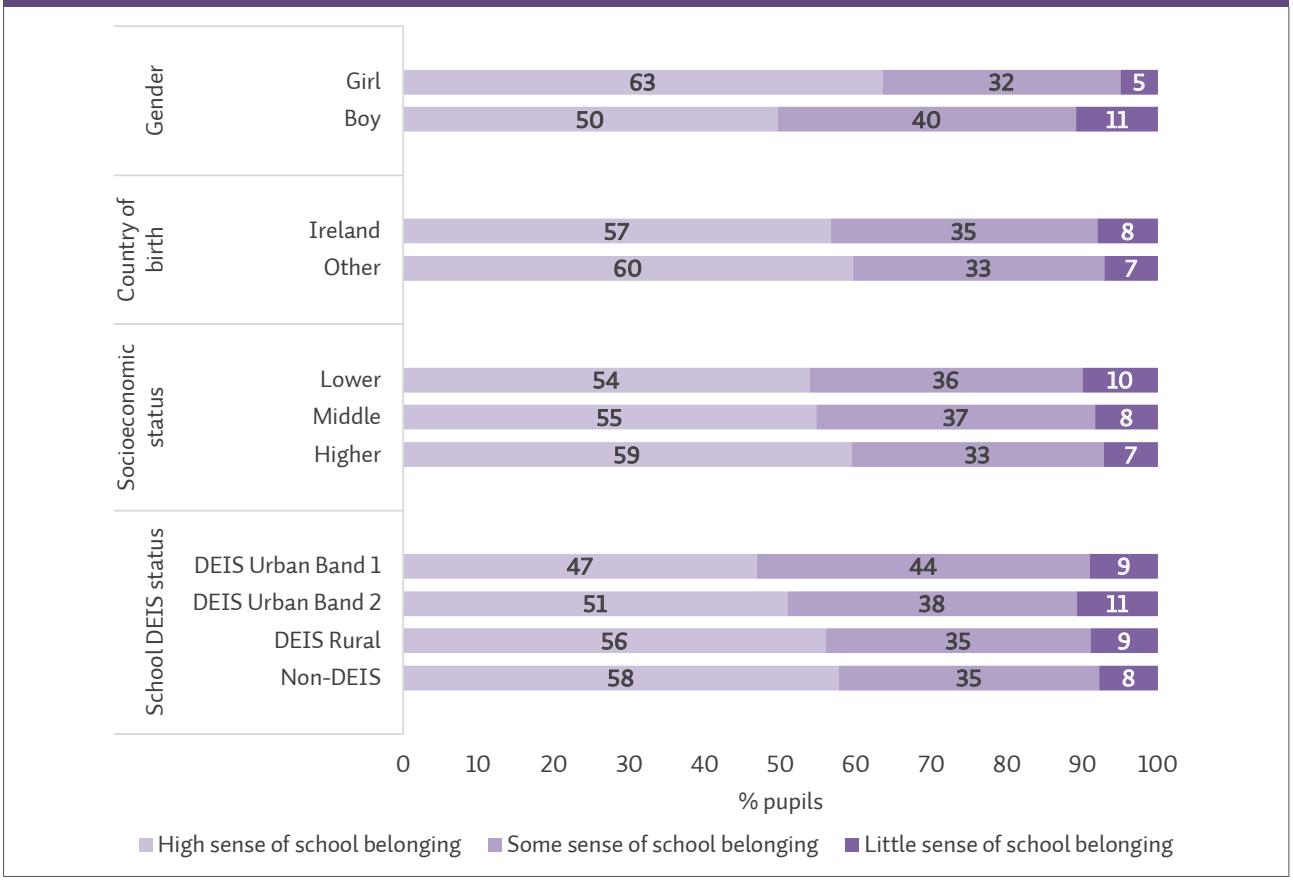
Pupil sense of school belonging

As mentioned in Chapter 5, the extent of pupils' sense of school belonging was captured through five items in the pupil questionnaire: *I like being in school; I feel safe when I am at school; I feel like I belong at this school; Teachers at my school are fair to me; I am proud to go to this school.* Pupils were asked how much they agreed or disagreed with each of these statements and their responses were used to create the PIRLS *Sense of School Belonging* scale, on the basis of which, pupils were grouped into three categories: *high sense of school belonging, some sense of school belonging,* and *little sense of school belonging*.

Figure 7.5 presents the percentages of pupils in each category of the PIRLS *Sense of School Belonging* scale by gender, country of birth, socioeconomic status, and school DEIS status. More than three-fifths of girls (63%) were classified as having a *high sense of school belonging*, which was statistically significantly above the proportion among boys (50%). More than one-tenth of boys (11%) were classified as having a *little sense of school belonging*, which was more than double the proportion among girls (5%), forming a statistically significant difference. Looking at

pupils' sense of school belonging by their country of birth, the proportions were broadly similar for the two groups across the different categories, with no statistically significant differences. The three socioeconomic groups of pupils did not statistically significantly differ in their sense of school belonging. Specifically, 59% of pupils in the *higher* group, 55% of pupils in the *middle* group, and 54% of pupils in the *lower* group reported having a *high sense of school belonging*, while 7%, 8%, and 10% of pupils in each of these groups, respectively, reported having a *little sense of school belonging*. Proportions of pupils in the *high sense of school belonging* category in DEIS Urban Band 1 schools (47%) and non-DEIS (58%) were statistically significantly different, while the proportions of pupils in the *little sense of school belonging* category by school DEIS status ranged from 8% for non-DEIS to 11% for DEIS Urban Band 2 schools.

Figure 7.5: Pupils' sense of school belonging by gender, country of birth, socioeconomic status, and school DEIS status (2021)



Source: Appendix Table A7.17 to A7.20.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Reading attitudes and behaviours

This section presents the extent to which pupils felt confident in reading, their liking of reading, and their engagement in reading lessons. These variables related to pupils' reading attitudes and behaviours are explored by pupils' gender, country of birth, socioeconomic status, and school DEIS status.

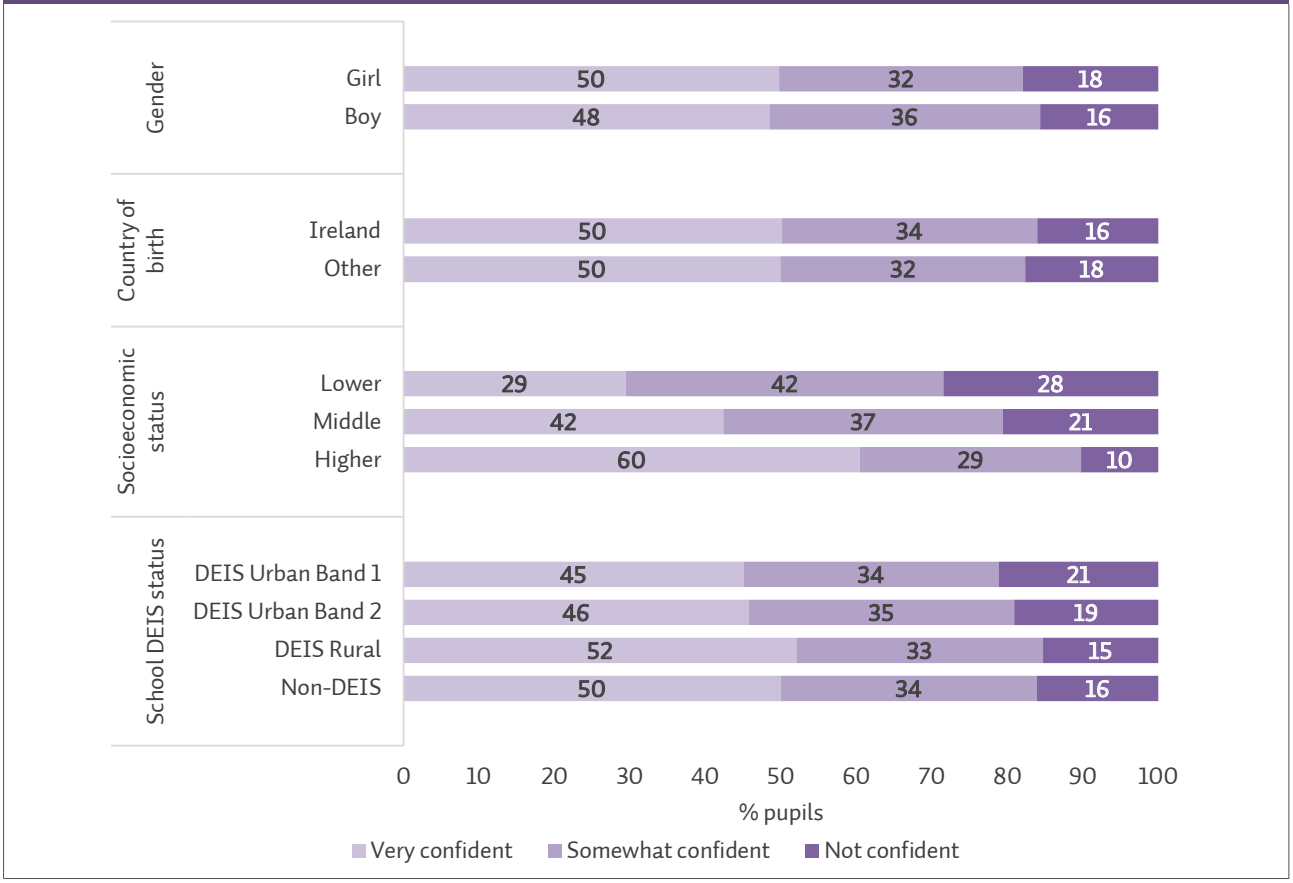
Confident in reading

As mentioned in Chapter 3, the extent to which pupils felt confident in reading was captured through six items in the pupil questionnaire: *I usually do well in reading*; *Reading is easy for me*; *I have trouble reading stories with difficult words* (reverse coded); *Reading is harder for me than for many of my classmates* (reverse coded); *Reading is harder for me than any other*

subject (reverse coded); *I am just not good at reading* (reverse coded). Pupils were asked how much they agreed or disagreed with each of these six statements and their responses were used to create the PIRLS *Students Confident in Reading* scale, on the basis of which pupils were described as *very confident*, *somewhat confident*, or *not confident* in reading.

Figure 7.6 presents the percentages of pupils in each category of the PIRLS *Students Confident in Reading* scale by gender, country of birth, socioeconomic status, and school DEIS status. The proportions of girls and boys in each of the categories were broadly similar. Similarly, pupils born in Ireland and those born outside of Ireland had relatively similar proportions in each of the categories. Contrary to these non-substantial differences, there were large differences by pupils' socioeconomic status. Three-fifths of pupils in the *higher* group reported being *very confident*, which was statistically significantly above the proportion in the *lower* group (29%) and above, though not statistically significantly, the proportion in the *middle* group (42%). Pupils in the *higher* group were also statistically significantly less likely to be *not confident* (10%) than pupils in the *middle* (21%) and *lower* (28%) groups. Some variation in the proportions of pupils across the different categories was also noted by school DEIS status. Statistically significantly higher proportions of pupils in DEIS Urban Band 1 schools reported being *not confident* in reading (21%) when compared to their peers in non-DEIS schools (16%).

Figure 7.6: Pupils confident in reading by gender, country of birth, socioeconomic status, and school DEIS status (2021)



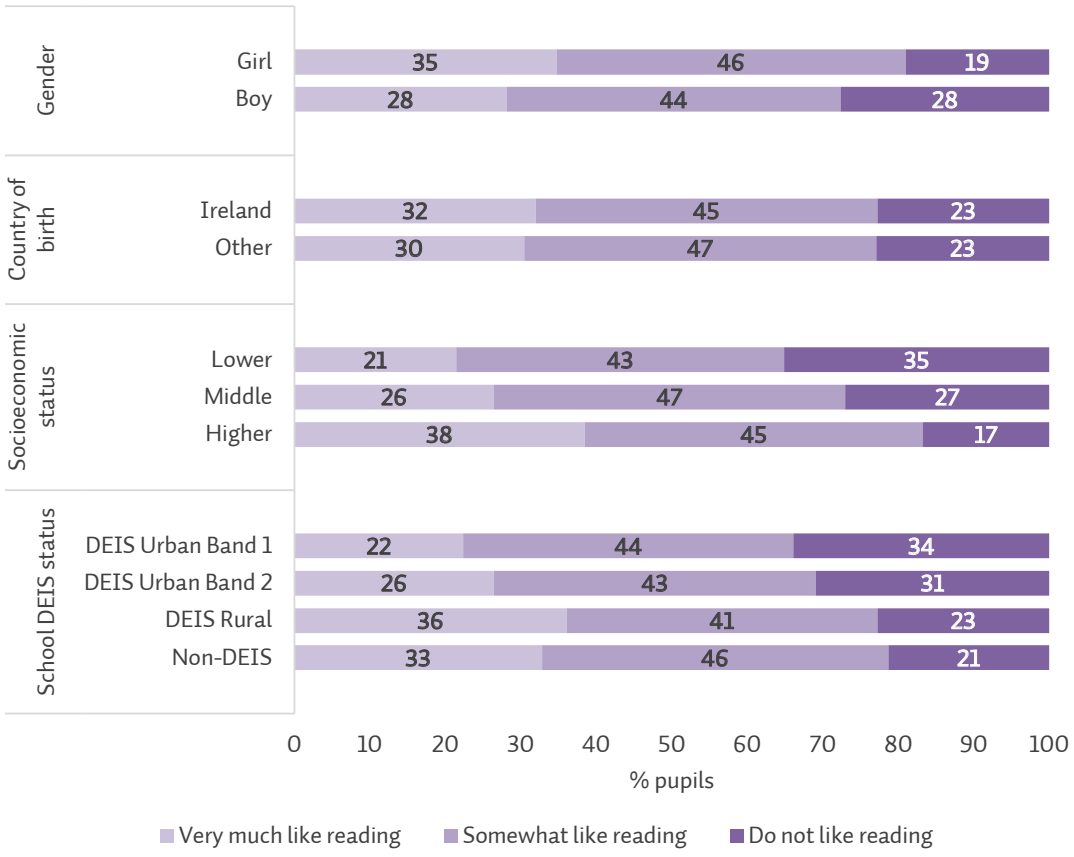
Source: Appendix Table A7.21 to A7.24.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Liking reading

The pupil questionnaire included 10 items relating to pupils' liking of reading. The 10 items included: *I like talking about what I read with other people; I would be happy if someone gave me a book as a present; I think reading is boring* (reverse coded)*; I would like to have more time for reading; I enjoy reading; I learn a lot from reading; I like to read things that make me think; I like it when a book helps me imagine other worlds; I read for fun; I read to find out about things I want to learn.* Pupils were asked how much they agreed or disagreed with the first eight statements and how often they did two reading activities outside of school (with response options ranging from *every day or almost every day* to *never or almost never*), and their responses were used to create the PIRLS *Students Like Reading* scale, on the basis of which pupils were grouped into three categories: *very much like reading, somewhat like reading,* or *do not like reading*.

Figure 7.7 presents the percentages of pupils in each category of the PIRLS *Students Like Reading* scale, by gender, country of birth, socioeconomic status, and school DEIS status. Approximately one-third of girls (35%) indicated that they *very much like reading*, while statistically significantly lower proportions were reported for boys (28%). Also, statistically significantly higher proportions of boys (28%) than girls (19%) reported that they *do not like reading*. Although no statistically significant differences were noted for pupils' liking of reading by their country of birth, proportions in the *do not like reading* category statistically significantly differed by their socioeconomic status. Over one-third of pupils in the *lower* socioeconomic group (35%) and over one-quarter of pupils in the *middle* socioeconomic group (27%) belonged to the *do not like reading* category. These were statistically significantly higher than the corresponding proportion within the *higher* socioeconomic group (17%). In the *higher* group, over one-third of pupils (38%) reported to *very much like reading* while the proportions in the *middle* (26%) and *lower* (21%) groups were substantially, and in the case of the *lower* group statistically significantly, lower. Pupils in DEIS Urban Band 1 schools were statistically significantly less likely to belong to the *very much like reading* category (22%) and statistically significantly more likely to belong to the *do not like reading* category (34%) compared to their peers in non-DEIS schools (33% and 21%, respectively). The proportion of pupils who *do not like reading* was also higher for DEIS Urban Band 2 schools (31%) than non-DEIS schools (21%), though this difference was not statistically significant. Finally, proportions of pupils in the *do not like reading* category were similar in DEIS Rural and non-DEIS schools. However, some caution is needed when interpreting these findings from DEIS Rural schools due to the large standard errors around the estimates due to the small sample size.

Figure 7.7: Pupils' liking of reading by gender, country of birth, socioeconomic status, and school DEIS status (2021)



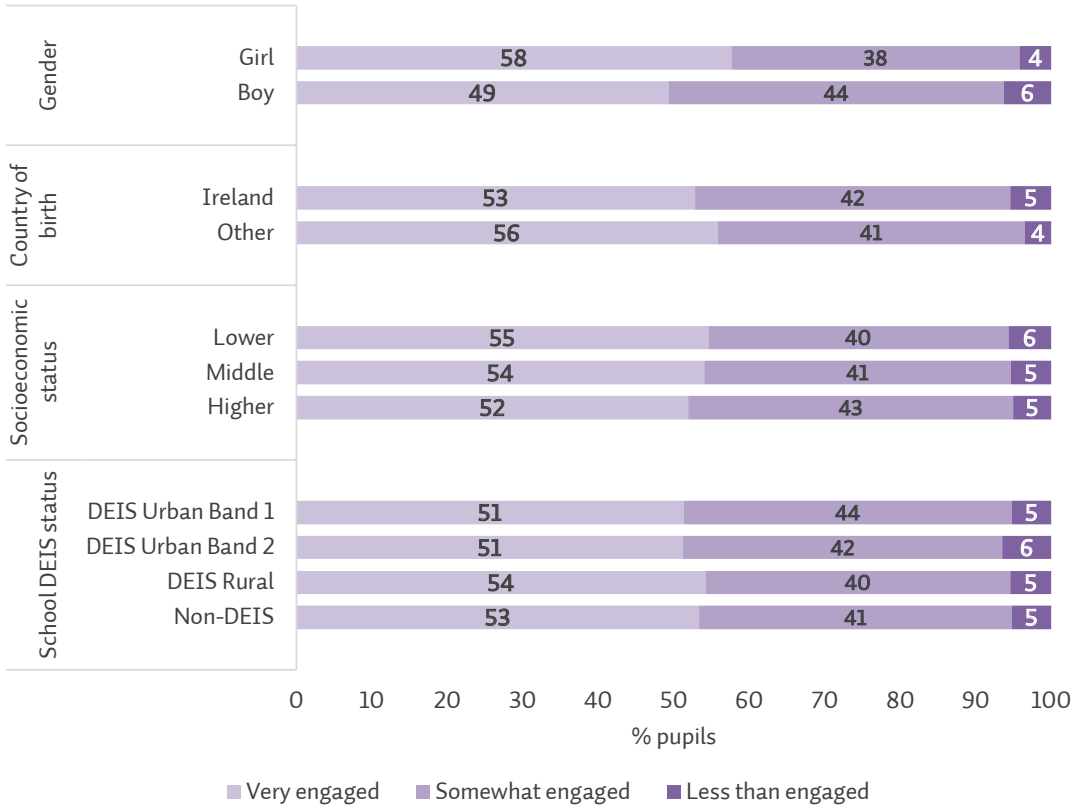
Source: Appendix Table A7.25 to A7.28.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Engaged in reading lessons

As mentioned in Chapter 3, the extent to which pupils were engaged in reading lessons was captured through nine items in the pupil questionnaire: *I like what I read about in school*; *My teacher gives me interesting things to read*; *I know what my teacher expects me to do*; *My teacher is easy to understand*; *I am interested in what my teacher says*; *My teacher encourages me to say what I think about what I have read*; *My teacher lets me show what I have learned*; *My teacher does a variety of things to help us learn*; *My teacher tells me how to do better when I make a mistake*. Pupils were asked how much they agreed or disagreed with each of these nine statements and their responses were used to create the PIRLS *Students Engaged in Reading Lessons* scale, on the basis of which pupils were described as *very engaged*, *somewhat engaged*, or *less than engaged* in reading lessons.

Figure 7.8 presents the percentages of pupils in each category of the PIRLS *Students Engaged in Reading Lessons* scale by gender, country of birth, socioeconomic status, and school DEIS status. Girls were statistically significantly more likely than boys to be *very engaged* and statistically significantly less likely to be *less than engaged*. Slightly more pupils who were born outside of Ireland (56%) were *very engaged* compared to pupils born in Ireland (53%), though this difference was not statistically significant. The proportions of pupils in each of the categories of the PIRLS *Students Engaged in Reading Lessons* scale by socioeconomic status and school DEIS status were broadly similar.

Figure 7.8: Pupils' engagement in reading lessons by gender, country of birth, socioeconomic status, and school DEIS status (2021)



Source: Appendix Table A7.29 to A7.32.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Chapter summary

The proportions reported by boys and girls about the frequency with which they are absent from school were broadly similar. Pupils born outside of Ireland were somewhat more likely to be absent more regularly (*once a week*) than pupils born in Ireland. *Lower* and *middle* socioeconomic groups had statistically significantly higher proportions of pupils being absent *once a week* and *once every two weeks* in comparison to the *higher* socioeconomic group. There were also statistically significant differences between DEIS Urban Band 1 and non-DEIS schools in the *once a week*, *once every two weeks*, and *never or almost never* categories, all indicating a higher frequency of pupil absence in DEIS Urban Band 1 schools.

Looking at the proportions who felt tired on arrival at school, boys were statistically significantly more likely to feel this way on a daily basis than girls, as were pupils in the *lower* and *middle* socioeconomic groups compared to pupils in the *higher* socioeconomic group, and pupils in DEIS Urban schools (Band 1 and Band 2) compared to pupils in non-DEIS schools. Despite these statistically significant differences in the frequency with which pupils reported feeling tired on arrival at school, the frequency with which they reported feeling hungry on arrival at school was broadly similar by pupil gender, country of birth, socioeconomic status, and school DEIS status.

Boys were statistically significantly more likely than girls to experience bullying *about weekly*, while girls were statistically significantly more likely to *never or almost never* experience bullying. Pupils born in Ireland were statistically significantly more likely to *never or almost never* experience bullying compared to pupils born outside of Ireland. There were also statistically significant differences in the proportions of pupils who experienced bullying *about weekly* by

their socioeconomic status, with higher levels of socioeconomic status being associated with lower exposure to frequent bullying, on average. This pattern was also noted for school DEIS status, whereby the proportion of pupils in DEIS Urban Band 1 schools experiencing bullying *about weekly* was statistically significantly above the corresponding proportion of pupils in non-DEIS schools.

A statistically significantly higher proportion of girls than boys had a *high sense of school belonging*, and, accordingly, the proportion of boys in the *little sense of school belonging* category was more than double the proportion of girls. While there were no statistically significant differences in pupils' sense of school belonging by their country of birth or individual socioeconomic status, this was not the case for school DEIS status. Pupils in DEIS Urban Band 1 schools were statistically significantly less likely than pupils in non-DEIS schools to belong to the *high sense of school belonging* category.

Proportions of boys and girls were broadly similar in each of the categories of the PIRLS *Students Confident in Reading* scale (*very confident*, *somewhat confident*, and *not confident*), as were the proportions of pupils who were born in Ireland and those born outside of Ireland. Differences in the extent to which pupils were confident in reading by their socioeconomic status were more substantial. Over one-quarter of pupils in the *lower* socioeconomic group and one-fifth of pupils in the *middle* socioeconomic group reported being *not confident*, while this proportion was one-tenth in the *higher* socioeconomic group (and these differences were statistically significant). There was less variation by school DEIS status, with the only statistically significant difference being noted for the *not confident* category, where pupils in DEIS Urban Band 1 schools were statistically significantly more likely to belong to this category than their peers in non-DEIS schools.

Approximately one-third of girls indicated that they *very much like reading*, statistically significantly above the over one-quarter of boys. More boys reported to not like reading than girls, and this difference was also statistically significant. There were large and statistically significant differences in the extent to which pupils liked reading by socioeconomic status in particular in the *do not like reading* category, with higher socioeconomic status being associated with higher levels of liking of reading, on average. Pupils in DEIS Urban schools were less likely to *very much like reading* and more likely to not like reading when compared with their peers in non-DEIS schools.

Small and generally not statistically significant differences by country of birth, socioeconomic status, and school DEIS status were noted for the PIRLS *Students Engaged in Reading Lessons* scale. Gender differences, though, were statistically significant, with girls being statistically significantly more likely than boys to be *very engaged*, and, conversely, boys being statistically significantly more likely than girls to be *less than engaged* in reading lessons.

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CHAPTER 8

Chapter 8: Educational Experiences During the COVID-19 Pandemic

The administration of PIRLS 2021 took place in Ireland in the autumn of 2021, when schools had returned to in-person teaching following the second round of lockdowns due to the COVID-19 pandemic. In Ireland, during the school year preceding the PIRLS administration (2020-2021), there was an extensive period of school closures, as well as periods of in-person teaching in schools with a number of required protective measures.

The PIRLS 2021 national report for Ireland by Delaney et al. (2023) highlighted the level of disruptions experienced by schools due to the COVID-19 pandemic. All school principals in Ireland reported that their school was closed for more than eight weeks of instruction during the 2020-2021 school year. Also, due to the high level of school closures, almost all school principals reported providing remote instruction or distance learning during this time, with most pupils in Ireland attending a school that had a whole-school policy on remote learning that was implemented during school closures. According to school principals, the vast majority of pupils in Ireland attended schools that provided internet resources for pupils and digital devices to teachers, as well as recommendations for teachers and parents to help with remote learning. Also, the majority of pupils attended a school where printed learning materials were supplied to pupils, though to a lesser extent than digital resources. This may be due to the need for limiting physical contact, as part of the national restrictions being implemented during the pandemic. Technical support for teachers and digital devices for pupils were the least reported methods of support in Ireland; however, there was still a large proportion of pupils whose school principals reported providing these as part of their remote learning supports.

In Ireland, as part of the PIRLS administration, Fifth Class teachers were asked to complete a questionnaire, while Fourth Class teachers, who had taught PIRLS pupils in the previous school year (2020-2021), were also asked to complete a national questionnaire, as described in Chapter 1. Drawing on these questionnaires, this chapter focuses on the experiences of Fourth and Fifth Class teachers in teaching pupils both during the second COVID-19 lockdown (during national school closures and in-person teaching) and at the time of PIRLS testing, once pupils were back in the classroom. The focus in this chapter is on Ireland only, and findings are reported at a high level and not split by subgroups (e.g., gender).[40]

Remote teaching and learning

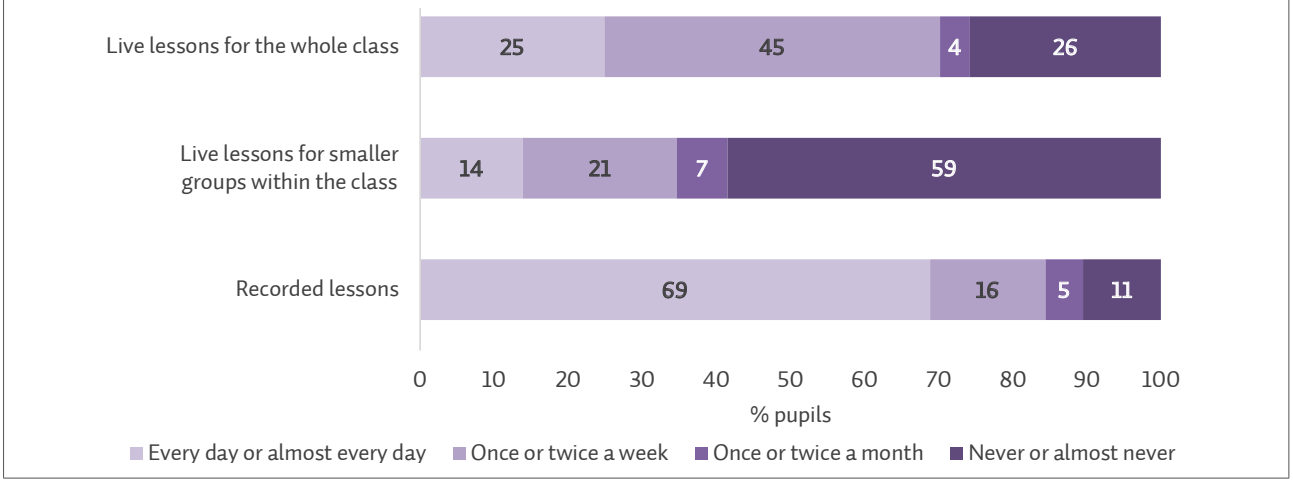
Fourth Class teachers in Ireland were asked to reflect on their time teaching pupils in the previous school year (2020-2021), during the national school closures. Specifically, teachers were asked to reflect on the most recent period of school closures that occurred between January and March 2021. Teachers reported on their experience of implementing remote teaching, the support and level of engagement they experienced, as well as the methods and activities they employed during remote teaching and learning.

Figure 8.1 shows the frequency of specific types of lessons used by Fourth Class teachers to enable remote learning in literacy. *Recorded lessons* were the most frequently used form of

40 Analysis applies only to pupils for whom Fourth Class teacher data were available and whose class group remained intact between school years 2020/2021 and 2021/2022. This comprised 82.3% of the full sample of participating PIRLS pupils.

teaching during lockdown, with 69% of pupils being taught by teachers who used recorded lessons *every day or almost every day* and another 16% whose teachers did so *once or twice a week*. *Live lessons for the whole class* were employed less frequently during school closures, with a quarter of pupils being taught by teachers who used this type of lesson for the whole class *every day or almost every day*, and a further 45% whose teachers did so *once or twice a week*. Just 14% of pupils were taught by a teacher who conducted *live lessons for smaller groups within the class every day or almost every day*, while for over half of pupils in Ireland (59%), their teacher *never or almost never* implemented lessons for smaller groups within the class.

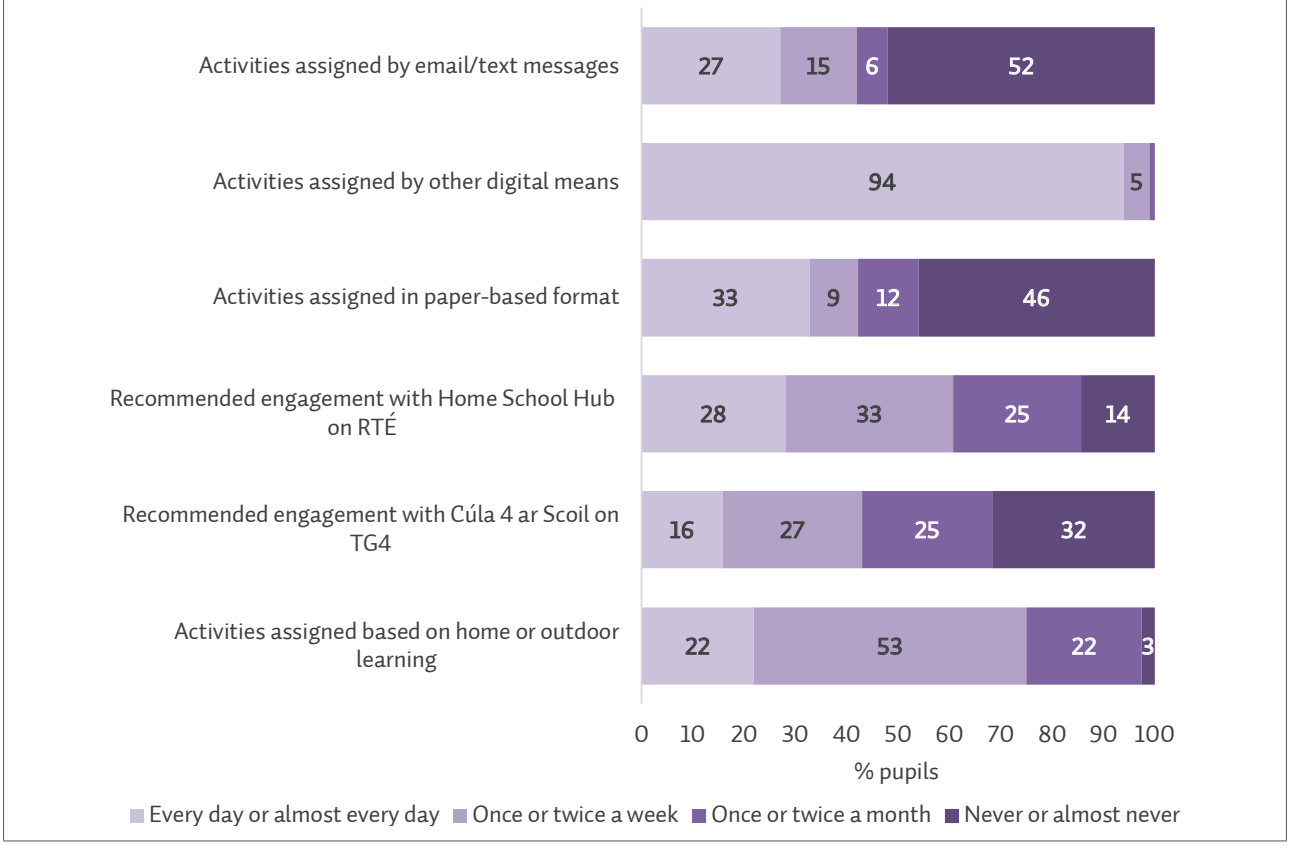
Figure 8.1: Frequency of lesson types to enable remote learning in literacy during school closures from January to March 2021 (2021)



Source: Appendix Table A8.1.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 8.2 shows selected activities and recommendations provided by teachers to enable learning in literacy during school closures. Several activities were used daily by a proportion of teachers in Ireland during school closures. The majority of pupils (94%) were taught by teachers who assigned activities by digital means (e.g., school websites) *every day or almost every day*. One-third of pupils were taught by teachers who assigned paper-based activities *every day or almost every day*, though 46% of pupils had teachers who *never or almost never* did so. This may be due to relevant national COVID-19 guidelines at the time, which restricted the distribution of paper resources. Other methods of assigning activities were also applied by Fourth Class teachers, as 27% of pupils had teachers who assigned activities via email or text messages and 22% of pupils had teachers who assigned activities based on home or outdoor learning *every day or almost every day*. A proportion of Fourth Class teachers also reported recommending engagement with television programmes frequently, with 28% of pupils being taught by teachers who recommended RTÉ's Home School Hub *every day or almost every day*, while a smaller proportion of pupils (16%) were recommended the Irish language show Cúla 4 ar Scoil on TG4 *every day or almost every day*.

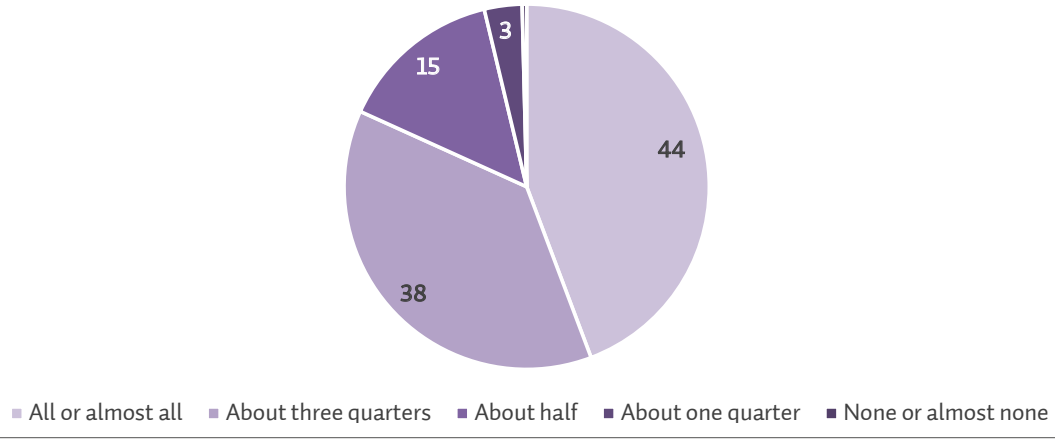
Figure 8.2: Frequency of activities to enable remote learning in literacy during school closures from January to March 2021 (2021)



Source: Appendix Table A8.2.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Fourth Class teachers were asked to report on the proportion of their class that regularly (at least 2–3 times per week) engaged in remote learning in literacy during the school closures from January to March 2021 (Figure 8.3). More than four out of 10 pupils in Ireland (44%) were taught by teachers who reported that *all or almost all* pupils regularly engaged in remote learning in literacy, with a further 38% whose teachers reported that *about three quarters* of their class engaged regularly in remote learning in literacy. A smaller percentage of pupils were taught by teachers who estimated that between *about half* and *about one quarter* of their class regularly engaged in remote learning in literacy; notably, less than half a percent of pupils were taught by teachers reporting that *none or almost none* of their class engaged in remote learning in literacy.

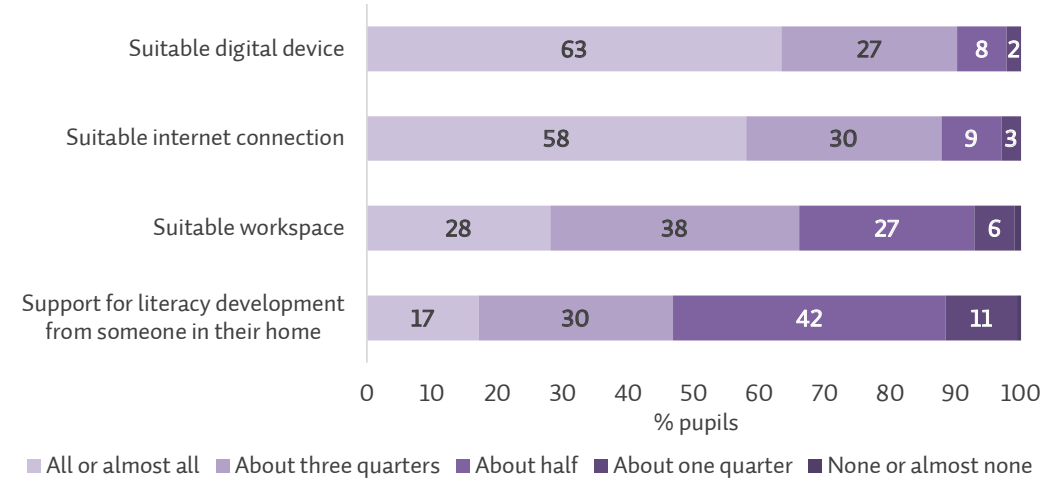
Figure 8.3: Regular pupil engagement (at least 2-3 times per week) in remote learning in literacy during school closures from January to March 2021 (2021)



Source: Appendix Table A8.3.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 8.4 shows the estimated proportions of pupils that had certain resources available to them at home to help them engage in remote learning, according to their Fourth Class teachers. Resources such as *suitable digital devices* and *suitable internet connection* were available to most pupils, with 90% and 88% of pupils having a teacher who reported that three-quarters or more of their class had a *suitable digital device* and a *suitable internet connection* available to them, respectively. In Ireland, 28% of pupils had a teacher who reported that *all or almost all* of their pupils had a *suitable workspace* for remote learning, with a further 38% of pupils having a teacher reporting that *about three quarters* of their pupils had this resource. Fourth Class teachers were also asked to estimate the proportion of pupils in their class who had *support for literacy development from someone in their home*. A large percentage of pupils (42%) had a teacher who reported that *about half* of their class had support from someone in their home, with a further 30% of teachers reporting that *about three quarters* of their class had such a support at home. Just 17% of pupils had teachers who reported that *all or almost all* of their class had support for literacy development at home.

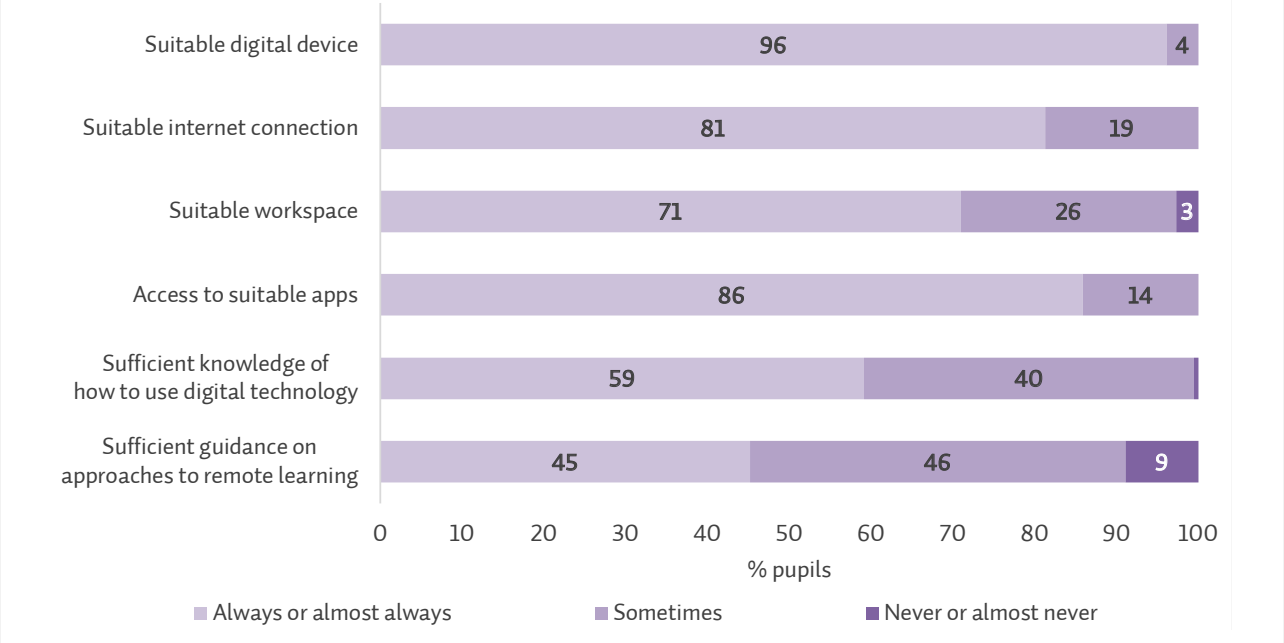
Figure 8.4: Resources available to pupils in their homes to enable remote learning during school closures from January to March 2021 (2021)



Source: Appendix Table A8.4.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

In addition to pupil resources, Fourth Class teachers were asked to report the frequency with which they themselves had access to different types of resources to facilitate remote learning during school closures (Figure 8.5). Approximately all pupils (96%) had teachers who *always or almost always* had a *suitable digital device* available to them for remote learning, while 86% of pupils were taught by teachers who *always or almost always* had *access to suitable apps (e.g., for video conferencing)*. Eight out of 10 pupils (81%) had teachers who *always or almost always* had a *suitable internet connection* to teach remotely, while 71% of pupils had teachers who *always or almost always* had a *suitable workspace* to facilitate remote learning. More than half of pupils in Ireland (59%) had teachers who *always or almost always* had *sufficient knowledge of how to use digital technology* for remote teaching. Roughly equal percentages of pupils had teachers who *always or almost always* (45%) or *sometimes* (46%) had *sufficient guidance on approaches to remote learning*. However, it is not specified within the question if such guidance was supplied by schools or if it was via the teachers' own initiative.

Figure 8.5: Frequency of access to resources for Fourth Class teachers to facilitate remote learning during school closures from January to March 2021 (2021)



Source: Appendix Table A8.5.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Table 8.1 shows the frequency with which Fourth Class teachers used specific supports to help facilitate remote learning during school closures from January to March 2021. The most frequently used supports tended to come from the teachers' immediate working environment (e.g., the colleagues in their school, or other teachers offline and online, and their school management). Around three-quarters (76%) of pupils were taught by teachers who *often* engaged with teaching colleagues within their schools for support during school closures. Approximately two-thirds (63%) of pupils had teachers who *often* received support from other teachers or educators, some of whom they engaged with through social media, while 47% of pupils had teachers who *often* looked for support from school management.

Fourth Class teachers also reported drawing on *guidance from the Department of Education,* but tended to do so *sometimes* rather than *often*, with 54% of pupils being taught by teachers who *sometimes* drew on this type of support and fewer of them (12%) being taught by a teacher who did so *often*, while the remaining one-third of pupils (34%) were taught by teachers who reported *never or almost never* drawing on guidance from the Department of Education.

Fourth Class teachers also reported drawing on supports provided by specific educational organisations to help facilitate remote learning. Among the organisations listed in the question, teachers most frequently drew on supports provided by the PDST. Specifically, 22% of pupils were taught by teachers who *often* relied on these supports, while an additional 49% were taught by teachers who did so *sometimes*. A small percentage of pupils (12%) were taught by teachers who *often* drew on supports provided by the NCCA, with over one-third (36%) of pupils being taught by a teacher who reported drawing on supports provided by the NCCA *sometimes*. Supports to help facilitate remote learning from other organisations (e.g., The Education Centre Network, the NCSE, Tusla Education Support Service [TESS]) during school closures were less popular among Fourth Class teachers, with the majority of pupils being taught by teachers who reported to *never or almost never* use supports provided by these organisations.

Table 8.1: Use of supports by Fourth Class teachers to help facilitate remote learning during school closures from January to March 2021 (2021)

	Often	Sometimes	Never or almost never
	%	%	%
Collaboration with teaching colleagues in your school	76	22	2
Support from other teachers or educators, including on social media	63	31	6
Support from school management	47	35	18
Guidance from the Department of Education	12	54	34
Supports provided by the Professional Development Service for Teachers (PDST)	22	49	29
Supports provided by the National Council for Curriculum and Assessment (NCCA)	12	36	51
Supports provided by the National Council for Special Education (NCSE)	8	29	63
Supports provided by An Chomhairle um Oideachas Gaeltachta & Gaelscolaíochta (COGG)	4	14	82
Supports provided by the National Educational Psychological Service (NEPS)	3	23	74
Supports provided by Tusla Education Support Service (TESS)	0	7	93
Supports provided by the Education Centre Network	11	28	62
Supports provided by other agencies/organisations	4	36	60

Source: Appendix Table A8.6.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

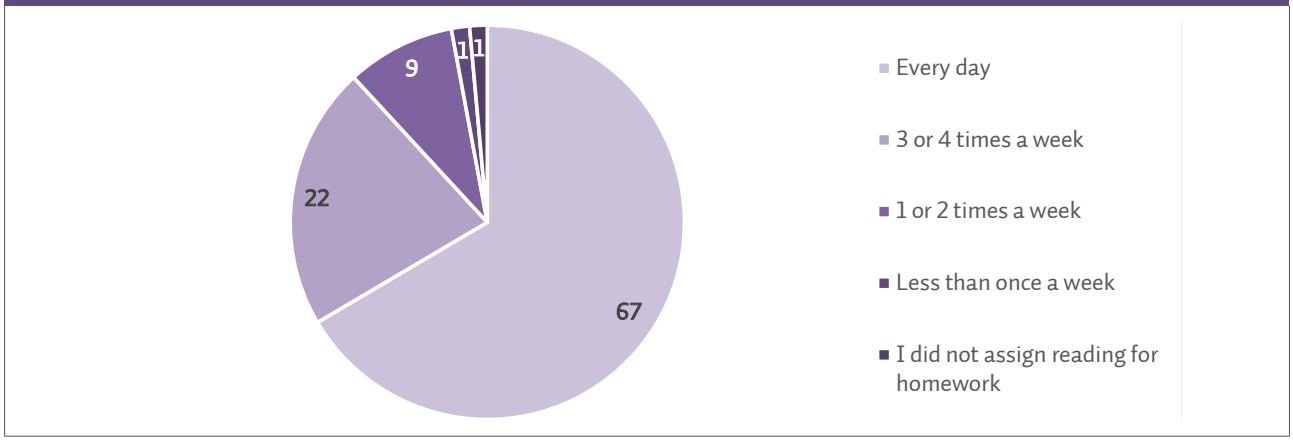
In-person teaching and learning

Fourth Class teachers in Ireland were asked to reflect on their time teaching the PIRLS pupils in the previous school year (2020-2021). Specifically, teachers were asked to reflect on periods during the 2020-2021 school year when they had returned to in-person teaching in their schools. This would have been at a time when there were a number of national restrictions and procedures that would need to be implemented within the classrooms and schools.

Figure 8.6 shows the frequency with which Fourth Class teachers assigned reading as part of pupils' homework (for any subject) during in-person teaching in early 2021. The majority of pupils in Ireland (67%) were taught by a Fourth Class teacher who assigned reading as part of homework (for any subject) *every day*. A further 22% of pupils had teachers who assigned

homework that involved reading *3 or 4 times a week*. Very few pupils in Ireland had a Fourth Class teacher who reported assigning reading as part of homework *less than once a week* (1%) or not assigning reading as part of homework at all (1%).

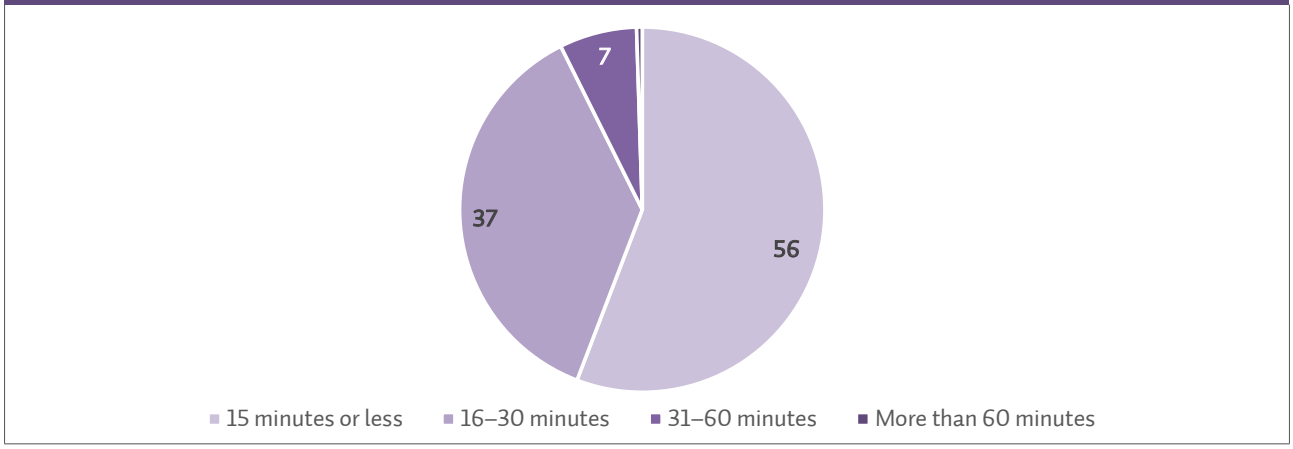
Figure 8.6: Frequency of assignment of reading as part of homework (for any subject) during in-person teaching in 2020-2021 (2021)



Source: Appendix Table A8.7.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Figure 8.7 shows how much time Fourth Class teachers expected pupils to spend on assigned homework (for any subject) that included reading, when assigned. Although the majority of Fourth Class teachers assigned homework daily (see Figure 8.6), they did not expect pupils to spend too much time on their homework, with 93% of pupils taught by Fourth Class teachers who expected pupils to spend up to 30 minutes on such homework. Of these, the majority (56%) were expected to spend *15 minutes or less* on their homework. Very few pupils in Ireland had a teacher who expected them to spend more than half an hour on homework that included reading (8%).

Figure 8.7: Expected time spent on assigned homework that involved reading (for any subject) during in-person teaching in 2020-2021 (2021)



Source: Appendix Table A8.8.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Fifth Class teachers (i.e., those teaching the PIRLS pupils at the time of testing) were asked to report if their school had provided any summer programmes funded by the Department of Education in 2021. As reported in the PIRLS 2021 national report for Ireland (Delaney et al., 2023), two-fifths of pupils (40%) attended a school where a summer programme had been provided. Of the schools that provided a summer programme, Table 8.2 shows the percentage that took part in selected programmes, as reported by teachers. Within those schools, 43%

of pupils attended schools that provided a *DEIS Literacy and Numeracy camp*, 68% of pupils attended schools that provided an inclusion programme for pupils with special educational needs and/or at risk of disadvantage who were in mainstream classes, while 62% of pupils attended schools that provided *a Special Educational Needs Programme for pupils in special classes and special schools*.

Table 8.2: Summer programmes funded by the Department of Education provided by schools in Ireland (2021)

	Yes %	No %
DEIS Literacy and Numeracy camp/Campaí Samhraidh	43	57
Inclusion programme for pupils in mainstream classes (with SEN, and/or at risk of disadvantage)	68	32
Special Educational Needs programme for pupils in special classes and special schools	62	38

Source: Appendix Table A8.9.
Notes. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix. Recent guidelines require that the term *Special Educational Needs* is used in full, and these guidelines are followed in this report. However, the statement "Inclusion programme for pupils in mainstream classes (with SEN, and/or at risk of disadvantage)" was presented in the teacher questionnaire using the acronym (i.e., *SEN*); hence, the acronym is used in this table.

The PIRLS 2021 national report for Ireland (Delaney et al., 2023) noted that most pupils (71%) were taught by Fifth Class teachers who reported that *none or almost none* of their pupils in the PIRLS class took part in the funded summer programmes provided by the school, while 24% of pupils were taught by teachers who reported that *about one quarter* of the PIRLS class attended such a programme. The national report also noted that there was some emphasis on literacy within the provided summer programmes, with 56% of pupils being taught by teachers reporting that literacy was included *to some extent*, and 17% being taught by teachers reporting that literacy was included *to a great extent*.

COVID-19 and literacy learning

In Ireland, both Fourth and Fifth Class teachers were asked to report the extent to which selected procedures and restrictions, which were put in place during the COVID-19 pandemic, had limited literacy learning. Fourth Class teachers were asked to recall the period of in-person teaching from the previous school year (2020-2021), while Fifth Class teachers were asked to report their experiences at the time of the PIRLS assessment (autumn 2021) within the context of in-person teaching with certain procedures and restrictions in place.

Table 8.3 shows both Fourth and Fifth Class teachers' responses to this set of questions. The majority of pupils had both Fourth Class (66%) and Fifth Class (59%) teachers who indicated that having *restricted access to facilities due to COVID-19* had, *to some extent*, limited pupils' literacy learning, while similar proportions of pupils had Fourth Class (27%) and Fifth Class (29%) teachers who indicated that this restricted access to facilities had limited literacy learning *to a great extent*. Substantial proportions of pupils, ranging between 28% and 30%, were also taught by Fourth and Fifth Class teachers who reported that the unavailability of support teachers due to COVID-19 related cover/activities limited literacy learning *to a great extent*.

Over half of pupils had teachers from both grades (52% and 59%, respectively), who reported that the additional *planning time required to facilitate adapted education provision for some pupils due to COVID-19* had, *to some extent*, limited literacy learning, while 25% and 22% of pupils had Fourth and Fifth Class teachers, respectively, who reported that the time spent on such adaptations limited pupils' literacy learning *to a great extent*. Teachers were also asked if COVID-19 related activities, such as hand sanitising, that had resulted in a loss of teaching/

learning time for reading had limited their pupils' literacy learning. Over a third of pupils (35%) were taught by Fourth Class teachers who reported that such activities did limit pupils' literacy learning *to a great extent*, and 29% of pupils had Fifth Class teachers who also reported such an impact on learning. Fourth Class teachers were also asked if the loss of teaching/learning time for reading due to the need for readjustment to in-person learning in the previous school year (2020-2021) had limited literacy learning, with the vast majority of pupils having teachers who reported that it had affected learning either *to some extent* (66%) or *to a great extent* (24%).

Teachers from both grades were also asked to report on the extent to which specific COVID-19 measures had limited pupils' literacy learning. Around a third (34%) and one-quarter of pupils had Fourth and Fifth Class teachers, respectively, who indicated that communication was impeded by face coverings *to a great extent*, with these data showing that this was still an issue but not to the same extent when pupils were back in the classroom in autumn 2021. Over half of pupils (59%) had a Fourth Class teacher who reported that the social distancing between themselves and their pupils had limited literacy learning *to a great extent*, while substantially fewer pupils were taught by a Fifth Class teacher who regarded this as an issue that limited pupils' literacy learning *to a great extent* (41%). More pupils had Fourth and Fifth Class teachers who reported that social distancing between pods of pupils limited pupils' literacy learning in comparison to social distancing between teachers and pupils. Two-thirds of pupils (66%) had Fourth Class teachers who considered that social distancing between pods had limited literacy learning *to a great extent*, while the equivalent percentage as reported by Fifth Class teachers was 47%.

Finally, both Fourth and Fifth Class teachers were asked to report on whether pupil absences due to COVID-19 had limited literacy learning. Just under a third of pupils (32%) were taught by Fourth Class teachers who reported that an *increased frequency of pupil absences, due to COVID-19,* had limited literacy learning *to a great extent* in the previous school year. Notably, the proportion of Fifth Class teachers reporting this was higher, with 41% of pupils having a Fifth Class teacher who reported that such absences during the autumn of 2021 had limited pupils' literacy learning *to a great extent*.

Table 8.3: Fourth and Fifth Class teachers' perceived impact of restrictions due to COVID-19 on literacy learning (2021)

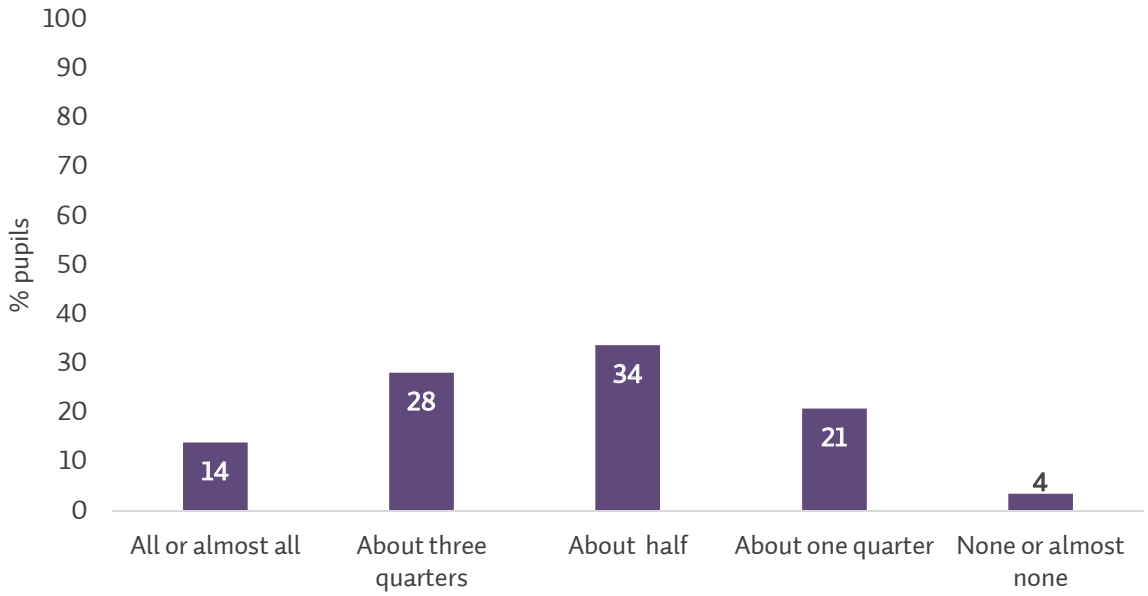
	Not at all		To some extent		To a great extent	
	Fourth Class	Fifth Class	Fourth Class	Fifth Class	Fourth Class	Fifth Class
	%	%	%	%	%	%
Restricted access to facilities (e.g., library, shared digital devices) due to COVID-19	8	12	66	59	27	29
Support teachers unavailable due to COVID-19 related cover/activities	26	21	46	48	28	30
Teaching/learning time for reading lost to COVID-19 related activities (hand sanitising, etc.)	9	15	55	55	35	29
Teaching/learning time for reading lost due to need for readjustment to in-person learning	10	-	66	-	24	-
Communication impeded by face coverings	16	23	50	51	34	26
Activities limited by social distancing between you and the pupils	4	12	37	48	59	41
Activities limited by social distancing between pods	3	8	32	45	66	47
Increased frequency of pupil absences, due to COVID-19	10	6	58	53	32	41
Planning time required to facilitate adapted education provision (e.g., ongoing remote learning) for some pupils, due to COVID-19	23	19	52	59	25	22

Source: Appendix Tables A8.10 and A8.11.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.
- Question not administered.

Figure 8.8 shows Fourth Class teachers' reports of the proportion of pupils in Ireland whose literacy development was negatively affected by the challenges faced since the beginning of the COVID-19 pandemic. Almost all pupils in Ireland (96%) were taught by Fourth Class teachers who indicated that literacy development of at least one quarter of their pupils had been negatively affected. In fact, only 4% of pupils were taught by a Fourth Class teacher who thought that *none or almost none* of their classes' literacy development had been affected. More than half of pupils (55%) had teachers who estimated that between *about one quarter* and *about half* of pupils in their class had their literacy development affected, while a further 42% of pupils were taught by a Fourth Class teacher who estimated that this was the case for a larger proportion of their pupils, i.e., *about three quarters* of or *all or almost all* pupils.

As part of the PIRLS 2021 national report for Ireland, Delaney et al. (2023) reported on Fifth Class teachers' responses to the same question presented in Figure 8.8 for Fourth Class teachers. When looking at both Fourth and Fifth Class teachers' estimates, it seems that the literacy development of fewer pupils was regarded to be negatively affected by challenges due the COVID-19 pandemic in the autumn of 2021 (the time of the PIRLS assessment) than in the previous school year (2020-2021). Notably, twice as many pupils (8%) had Fifth Class teachers who viewed that *none or almost none* of their class had their literacy development negatively affected in the autumn of 2021 in comparison to 4% based on the reports of Fourth Class teachers for the previous school year. Also, fewer pupils had Fifth Class teachers who estimated that between *about three quarters* of and *all or almost all* pupils' literacy development had been negatively affected (33%) in comparison to Fourth Class teachers (42%).

Figure 8.8: Percentages of pupils by the proportion of their class for which literacy development was negatively affected by challenges due to the COVID-19 pandemic, as reported by Fourth Class teachers (2021)



Source: Appendix Table A8.12.
Note. Due to rounding, some differences may appear inconsistent with those reported in text or the Appendix.

Chapter summary

In Ireland, during periods of remote learning, the majority of Fourth Class teachers (69%) implemented teaching via *recorded lessons* on a daily basis. *Live lessons for the whole class* were employed less frequently as were *live lessons for smaller groups within the class*, with over half of pupils in Ireland having a teacher who *never or almost never* implemented such lessons. Several activities were used daily to enable literacy learning during school closures. Specifically, the majority of pupils in Ireland were taught by teachers who assigned activities by digital means, such as the school website, on a daily basis. In contrast, although a third of pupils were taught by Fourth Class teachers who assigned paper-based activities every day, a substantial percentage of pupils (46%) had teachers who *never or almost never* assigned paper-based activities. This may be linked with the national COVID-19 restrictions at the time, which required that movement of paper resources was limited. Other types of activities were also assigned by Fourth Class teachers, such as recommendations for engagement with television programmes (e.g., Home School Hub and Cúla 4 ar Scoil) or activities based on home or outdoor learning, but to a lesser degree.

Fourth Class teachers reported that a large proportion of pupils regularly engaged in remote learning in literacy during school closures from January to March 2021, with regular engagement defined as engaging with reading lessons at least two to three times per week. Specifically, the majority of Fourth Class teachers estimated that *about three quarters* or more of their class engaged regularly in remote learning. A smaller percentage of pupils were taught by teachers who estimated that between one quarter or half of their class regularly engaged in remote learning in literacy, while, notably, only a miniscule percentage of pupils in Ireland had teachers who reported that *none or almost none* of the class engaged in remote learning in literacy.

Among the resources enabling remote learning, *suitable digital devices* and *internet connection* were available to most pupils, according to Fourth Class teachers. Alongside these, the majority

of pupils in Ireland (66%) had a teacher who reported that *about three quarters* or more of their class had a *suitable workspace* for learning at home. Just under half of pupils had a Fourth Class teacher who reported that most of their class (three-quarters or more) had support from someone in their home for literacy development. Fourth Class teachers were also asked to report the frequency with which they themselves had access to different types of resources, in order to facilitate remote learning during school closures. Nearly all pupils in Ireland had a teacher who *always or almost always* had a *suitable digital device* available to them for remote learning, while over four-fifths of pupils had a teacher who *always or almost always* had *access to suitable apps* that they could use on such devices. However, although forming a substantial proportion, fewer pupils had teachers who reported *always or almost always* having a *suitable internet connection* or a *suitable workspace* to facilitate remote learning. More than half of pupils in Ireland had teachers who *always or almost always* had *sufficient knowledge of how to use the digital technology* available to them for remote learning, while almost equal numbers of pupils (45% and 46%, respectively) had teachers who either *always/almost always* or *sometimes* had guidance provided to them on the different approaches to remote learning. However, it is not specified within the question if such guidance was supplied by schools or if it was via the teachers' own initiative.

The most frequently used supports for teachers to facilitate remote learning tended to come from the teachers' immediate working environment. Over three-quarters of pupils were taught by teachers who *often* engaged with their teaching colleagues within their schools for support during school closures. Just under two-thirds of pupils had a teacher who *often* took support from other teachers or educators, some of whom they engaged with through social media, while just under half *often* looked for *support from school management*. Although Fourth Class teachers did draw on *guidance from the Department of Education*, they did so less frequently, with over half of pupils having teachers who *sometimes* drew on such guidance, while fewer pupils (12%) had a teacher who did so *often*. Of the educational organisations listed in the questionnaire, teachers engaged most frequently with the PDST, followed by the NCCA, while smaller proportions of pupils were taught by teachers who reported drawing on supports from the NCSE, the An Chomhairle um Oideachas Gaeltachta & Gaelscolaíochta (COGG), the National Educational Psychological Service (NEPS), the Education Centre Network, or other agencies/organisations.

The majority of pupils in Ireland (89%) were taught by Fourth Class teachers who assigned homework, in which reading was a component, at least three times a week. Very few pupils had a Fourth Class teacher who reported assigning reading as part of homework less than once a week or not assigning reading as part of homework at all. Although most Fourth Class teachers assigned homework, they did not expect pupils to spend too much time on their homework, with the majority of pupils (93%) having been taught by Fourth Class teachers who expected pupils to spend up to 30 minutes on such homework. Of these, over half expected pupils to spend *15 minutes or less* on their homework. Very few pupils in Ireland had a teacher who expected them to spend more than half an hour on homework that included reading.

As noted in the PIRLS 2021 national report for Ireland (Delaney et al., 2023), most pupils in Ireland were taught by Fifth Class teachers who reported that *none or almost none* of their pupils took part in the funded summer programmes provided by the school in 2021. Within the 40% of schools that provided a summer programme funded by the Department of Education, 43% of pupils attended schools that provided a *DEIS Literacy and Numeracy camp*, 68% of pupils attended schools that provided an inclusion programme for pupils with Special Educational Needs and/or at risk of disadvantage who were in mainstream classes, while 62%

of pupils attended schools that provided a *Special Educational Needs Programme for pupils in special classes and special schools*.

The majority of both Fourth and Fifth Class teachers agreed that having restricted access to facilities due to COVID-19 had limited pupils' literacy learning to either *some* or *a great extent*. Most Fourth and Fifth Class teachers also reported that the unavailability of support teachers due to COVID-19 related cover/activities limited pupils' literacy learning to at least some extent. Over half of pupils had Fourth and Fifth Class teachers who reported that the additional *planning time required to facilitate adapted education provision for some pupils due to COVID-19* had, *to some extent*, limited literacy learning, while COVID-19 related activities (e.g., hand sanitising) seemed to be more strongly linked with a loss of teaching/learning time for reading according to Fourth Class teachers than according to Fifth Class teachers. Fourth Class teachers were asked if the loss of teaching/learning time for reading due to the need for readjustment to in-person teaching in the previous school year (2020-2021) had limited literacy learning, with the majority of pupils having teachers who reported that it did either *to some* or *a great extent*.

Around a third of pupils had a Fourth Class teacher who noted that trying to communicate while wearing a face covering impeded teaching *to a great extent*, yet fewer pupils had a Fifth Class teacher who reported likewise. Also, over half of pupils had a Fourth Class teacher who reported that the social distancing between themselves and their pupils had affected literacy learning *to a great extent*, while substantially fewer pupils were taught by a Fifth Class teacher who regarded this as an issue that limited pupils' literacy learning *to a great extent*. More pupils had Fourth and Fifth Class teachers who reported that social distancing between pods of pupils limited pupils' literacy learning in comparison to social distancing between teachers and pupils. Two-thirds of pupils had a Fourth Class teacher who considered that social distancing between pods had limited literacy learning *to a great extent*, while the equivalent proportion as reported by Fifth Class teachers was 47%. A third of pupils were taught by Fourth Class teachers who reported that pupil absences (due to COVID-19) had limited literacy learning *to a great extent* in the previous school year (2020-2021). Yet, more pupils had a Fifth Class teacher who reported that pupil absences in the autumn of 2021 had limited literacy learning *to a great extent*.

Almost all pupils in Ireland were in a class for which Fourth Class teachers reported that literacy development had been negatively affected by challenges during the COVID-19 pandemic for at least some part of the class. In fact, only 4% of pupils were taught by a Fourth Class teacher who thought that *none or almost none* of their class' literacy development had been affected. More than half of pupils had teachers who estimated that between *about one quarter* and *about half* of pupils in their class had their literacy development affected, while a further two-fifths of pupils were taught by Fourth Class teachers who estimated that a larger proportion of their class had been affected, i.e., at least three-quarters of pupils. When looking at both Fourth and Fifth Class teachers' estimates, it seems that the literacy development of fewer pupils was regarded as negatively affected by challenges due the COVID-19 pandemic in the autumn of 2021 (the time of the PIRLS assessment) than in the previous school year (2020-2021).

PIRLS 2021:

Exploring the contexts for reading of primary school pupils in Ireland

Vasiliki Pitsia, Sarah McAteer, Gráinne McHugh, and Emer Delaney

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CHAPTER 9

Chapter 9: Key Findings and Conclusions

The PIRLS 2021 implementation included three notable changes compared to previous cycles. Two of these changes were planned: a further transition to digital test administration for some, but not all, countries, and the introduction of a "group adaptive testing" approach to enhance the quality of information collected in both the lowest- and highest-achieving countries. The third was unplanned and resulted from the need to adapt procedures to address the global challenges posed by the COVID-19 pandemic. These challenges prevented participating countries from conducting a smooth or complete field trial (normally held a year before the main data collection) and disrupted the main data collection too. Consequently, the main data collection for PIRLS 2021 spanned a year and a half across the participating countries, from autumn 2020 to spring 2022.

In Ireland, the main data collection for PIRLS 2021 was postponed from spring 2021 to autumn 2021, resulting in the pupils initially sampled at the end of Fourth Class (End G4) being assessed at the start of Fifth Class (Start G5). Although the original plan for Ireland was to administer the digital version of PIRLS 2021, the school closures and national restrictions due to COVID-19 led to a decision to administer the paper-based version instead. This approach was deemed safer, as it minimised the risk of COVID-19 transmission and was less disruptive. Despite the changing plans and significant disruption to the education system, the staff, pupils, and parents in sampled schools in Ireland showed remarkable commitment and goodwill towards the study. This dedication is reflected in response rates that are high by the standards of any PIRLS cycle and exceptionally high for a cycle conducted during the pandemic. As Delaney et al. (2023) note, it was evident that teachers recognised the importance of collecting large-scale data on pupils' reading skills within the context of the COVID-19 pandemic, which included prolonged periods of school closures and remote teaching and learning.

In addition to the general caveat regarding trend comparisons with PIRLS 2021 data, which concerns the impact of COVID-19 on pupils' instructional experiences, the administrative challenges of the PIRLS 2021 data collection, both internationally and nationally, have introduced specific challenges in interpreting the resultant data. Internationally, certain caveats are necessary for comparisons between End G4 and Start G5 countries, while the distinction between countries that administered PIRLS 2021 on paper and those that administered it digitally should also be borne in mind. This is despite the fact that the PIRLS 2021 scaling methodology accounted for mode effects and allowed for the placement of paper and digital PIRLS data on a single scale. Nationally, as described in Chapter 1, for Start G5 countries, including Ireland, the changes in age, grade, and time of year for the PIRLS 2021 cycle compared to previous cycles must be considered for cross-cycle comparisons. Also, for End G4 countries that tested one year later than planned, comparisons with the previous PIRLS cycle (2016) represent a six-year trend instead of the usual five-year trend (compared to the rest of the countries).

Despite the challenges outlined for both within- and cross-country comparisons, the PIRLS achievement data and the contextual data provided by pupils, their parents, teachers, and school principals, as described in this report, offer a dependable and comprehensive snapshot

of the reading comprehension skills and related experiences of Fifth Class pupils in Ireland, including various subgroups within this population, as of autumn 2021. Furthermore, they provide valuable insights into the context in which these skills were cultivated or impeded.

Chapters 3 to 8 delve into the findings of this report, presenting data for Ireland within an international comparative context. The analyses consider data from previous PIRLS cycles in 2011 and 2016, examine various aspects such as pupil, home, class, teacher, and school characteristics, and address pupils' educational experiences amidst the backdrop of the COVID-19 pandemic. Each of these chapters includes a detailed summary highlighting its main findings. Consequently, an exhaustive overview of all findings presented in this report is beyond the scope of this final chapter. Rather, this chapter consolidates key findings, explores their alignment with the policy context of PIRLS 2021, and outlines potential policy implications and recommendations for future research.

Factors associated with reading achievement

The gap in PIRLS achievement between pupils born in Ireland and those born outside Ireland, favouring the former group, narrowed between 2016 and 2021, resulting in a not statistically significant difference in overall reading achievement.[41] This finding aligns with data at the post-primary level (PISA 2022; Donohue et al., 2023). Despite this progress, which should be interpreted in light of the caveats associated with the PIRLS 2021 data outlined earlier, the statistically significant gaps on the Literary and Retrieve/Infer reading subscales favouring pupils born in Ireland indicate that efforts to further enhance inclusion within the Irish education system remain crucial. These remaining differences justify the relevant objectives of the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033* under Pillars 1 and 5, focusing on supporting diverse learners, including immigrant pupils, to achieve their potential (Department of Education, 2024b, 2024c). Moreover, as noted by P. Burke and Lehane (2023), linguistically and culturally responsive assessment tools are necessary to ensure that valid inferences can be drawn about the proficiency and needs of pupils from diverse backgrounds.

The previous Literacy and Numeracy Strategy and its interim report (Department of Education and Skills, 2011b, 2017d), alongside other publications (e.g., Donohue et al., 2023), have highlighted considerable progress in meeting the needs of low achievers in Ireland across various subjects, including reading. This progress is also echoed in the PIRLS 2021 results as described by Delaney et al. (2023). However, despite efforts that have led to this progress, particularly for specific subgroups of pupils (see, for example, Nelis and Gilleece, 2023, for more information about DEIS schools), the more in-depth investigation of the profiles of low-, medium-, and high-achieving pupils presented in this report has identified certain groups of pupils to be at a higher risk of lower achievement compared to their peers. Specifically, boys, pupils who were not very confident in reading and those who did not particularly like reading, pupils in the middle and lower socioeconomic groups, and those attending DEIS Urban schools were statistically significantly more likely to be low achievers and statistically significantly less likely to be high achievers in reading compared to girls, pupils who were very confident in reading, those who very much liked reading, those in the higher socioeconomic group, and

41 It is important to clarify that this comparison does not account for the language(s) spoken by the pupils. Therefore, being *born outside Ireland* does not necessarily imply that a pupil does not speak the language of the test at home, though some overlap between these groups is likely. Separate findings, detailed in Chapter 3, show that pupils who *almost always speak the language of the test* at home tend to achieve the highest mean reading scores among their peers.

those attending non-DEIS schools, respectively.[42]

On the other hand, there is acknowledgement that the needs of high achievers have not been met to a similar extent, necessitating additional efforts to enhance educational provision across the full spectrum of ability within the Irish education system. This is also identified as a key theme in the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033* (Department of Education, 2024b), which explicitly outlines the need to further support high-achieving learners in reaching their full potential. While relevant research (e.g., Pitsia, 2021; Pitsia et al., 2024; Shiel & Pitsia, 2022) has indicated that challenges in meeting the needs of high achievers are more pronounced in mathematics, followed by science, and to a lesser extent, reading, targeting relevant policy initiatives towards supporting these groups of pupils across subjects—while ensuring attention to all pupils—is essential for promoting more equitable educational outcomes. In this context, providing teachers with guidance on how to effectively challenge these learners using outcome-based curricula could prove highly beneficial.

Attitudes towards and engagement in reading

In 2021, a decrease in the proportion of pupils reporting being very confident in reading and an increase in those reporting not being confident were observed compared to 2016. Concurrently, the achievement gap between these two groups widened between the two PIRLS cycles. On the other hand, the achievement gap between pupils who very much liked reading and those who did not like reading narrowed; while this seemed initially encouraging, it was accompanied by a decline in the proportion of pupils who very much liked reading and an increase in the proportion of pupils who did not like reading, a pattern also noted among pupils' parents. Regarding pupils' engagement in reading lessons, a decrease was noted in the proportion of pupils who reported being very engaged in reading lessons in 2021 compared to 2016 (although this could be related to the period during which PIRLS 2021 took place, i.e., autumn 2021, following prolonged periods of school closures and remote learning), while the achievement gap between very engaged and less than engaged pupils slightly increased between the two PIRLS cycles. Furthermore, fewer pupils had parents who frequently read for their own enjoyment in 2021 compared to previous years. This may reflect the impact of COVID-19, which probably limited parents' opportunities for leisure reading, particularly for those balancing remote work, homeschooling, childcare, and household responsibilities. Against this background, it is worth noting that the time spent by pupils' parents reading at home (including books, magazines, newspapers, and materials for work) seemed to have a stronger association with pupils' reading achievement in 2021 compared to previous PIRLS cycles – notably, the strongest among the selected reference countries.

More in-depth analyses of pupils' attitudes towards and engagement in reading lessons revealed that the extent to which pupils felt confident in reading did not vary by gender; however, boys tended to like reading and be engaged in reading lessons less than girls. Additionally, pupils from higher socioeconomic backgrounds and those attending non-DEIS schools were more likely to be more confident in and like reading compared to their peers from lower socioeconomic backgrounds and DEIS Urban schools, respectively. Similar patterns were observed in Ireland in PIRLS 2016 (with the exception of the analysis by individual socioeconomic status, which was not available) (Delaney et al., 2022).

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42 It is important to note that these findings are based on bivariate analysis, which examined the relationships between each individual variable and achievement one at a time. This type of analysis does not account for the role of multiple variables in predicting pupils' chances of belonging to the three performance groups simultaneously and should be interpreted considering this limitation.

Taken together, these findings indicate less positive attitudes towards reading and less frequent engagement in reading lessons in 2021 compared to previous years both among pupils themselves and their parents, with more negative attitudes being more pronounced for certain subgroups of pupils. Notwithstanding national actions outlined in the *2011 National Strategy* and subsequent efforts, including those reflected in its interim report (Department of Education and Skills, 2011b, 2017d), aimed at improving the attitudes towards reading and promoting engagement in reading activities for all pupils and specific subgroups, pupils' and parents' attitudes towards and engagement in reading seemed to deteriorate in 2021 compared to previous years. These findings are in contrast with the very high stability in these variables between 2011 and 2016 (Delaney et al., 2022) but in line with other relevant, more recent research within the Irish context (e.g., McKeown et al., 2019; Shiel et al., 2022; Smyth, 2024).[43] These findings need to be interpreted considering the period during which PIRLS 2021 took place (i.e., autumn 2021, following prolonged periods of school closures and remote learning), as it is likely that the COVID-19 context may have had an important role in shaping pupils' and parents' attitudes towards and engagement in reading, among other outcomes.

In light of these findings, though, the continued emphasis on pupils' and parents' attitudes towards and engagement in learning in the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033* (Department of Education, 2024b) appears wise. Specifically, maintaining and increasing focus on the attitudes of young learners is crucial, as these constructs are highly malleable early in life, and positive developments during these formative years are likely to yield long-term benefits for pupils. Within this context, supporting teachers and school principals in raising parents' awareness of their pivotal role as partners in shaping their children's learning from the early years is imperative. ITE and CPD programmes could be tailored to equip educators with the skills and knowledge necessary to effectively collaborate with parents in fostering a supportive learning environment both at home and in school. Such efforts align with the emphasis on partnerships in the principles of learning, teaching, and assessment that underpin the Primary Curriculum Framework (NCCA, 2023).

Reading activities and instruction

Early years' education and parental involvement in children's learning from a young age have been key priorities of the *2011 National Strategy* and its interim report (Department of Education and Skills, 2011b, 2017d), and remain central in the new Strategy (Department of Education, 2024b, 2024c). In line with this focus, Early Years Education Inspections (EYEI) were introduced in April 2016, guided by a quality framework informed by Aistear, Síolta, and national and international research. EYEI reinforced policymakers' commitment to ensuring that all children have enriching early childhood experiences, with a strong focus on language and literacy in ELC settings (Inspectorate - Department of Education, 2024).

The findings presented in this report point towards positive relationships between reading achievement and i) the frequency with which pupils engaged in a range of early literacy activities before starting First Class with their parents or someone else at home and ii) pupils' literacy readiness at the beginning of First Class. Notably, the latter relationship was among the strongest observed across the selected reference countries, noting, though, that the Irish context is different in the sense that pupils start First Class after two years of schooling.

43 It is worth noting that directly comparable between-cohort data on reading attitudes are not available in Smyth's (2024) study due to changes to question phrasing.

While causal relationships cannot be inferred from the bivariate analyses conducted here, further research could usefully explore the extent to which early literacy activities and early literacy readiness predict reading achievement when other variables, such as socioeconomic status, are accounted for. That caveat notwithstanding, these findings indicate that the continued emphasis on early childhood education and parental involvement appears justified, while the slightly higher frequency of pupil engagement in early literacy activities at home reported by parents in 2021 compared to previous years may be linked to this emphasis. These findings also suggest the potential value of increased availability of up-to-date and culturally appropriate screening and diagnostic tests for literacy difficulties and the implementation of interventions during these formative years to further support prevention at primary level (NEPS, 2016), which comprises an action under Pillar 5 of the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033* (Department of Education, 2024c). The ERC is currently redeveloping its screening and diagnostic tests of early literacy, with versions in both Irish and English to be available.

The PIRLS 2021 data indicated that, broadly speaking, classroom practices have not greatly changed compared to previous PIRLS cycles and other relevant studies. While such continuity may seem unexpected under normal circumstances given the introduction of the PLC (Department of Education and Skills & NCCA, 2019), through which the PIRLS 2021 cohort received most of their education, the prolonged school closures and remote teaching and learning due to COVID-19 likely disrupted the smooth rollout of the new curriculum, which may, in turn, have had a bearing on classroom practices. Although classroom practices remained relatively consistent, a few notable differences emerged in 2021 compared to previous cycles. Specifically, more pupils were asked by their teachers to talk with each other about what they had read and to write something in response to what they had read, while fewer pupils were provided with materials that matched their interests and with time for reading books of their choosing, and fewer pupils were asked to read texts that included multiple perspectives. While these differences may be attributable to adjustments stemming from the new curriculum, such as initial emphasis on oral language in its implementation, and/or adaptations necessitated by the move to remote teaching and learning due to COVID-19, untangling these relationships presents challenges.

Use of digital devices for reading and other activities

The proportions of pupils owning a computer/tablet and a smartphone varied to some extent across the selected reference countries, as did the magnitude and direction of achievement differences between pupils who owned these devices and those who did not. In Ireland, pupils' access to their own computer/tablet and smartphone was associated with lower achievement. These inconsistent patterns of mean differences across countries suggest that owning such devices may not be necessarily associated with lower achievement, and that the way(s) in which pupils utilise such devices may be more critical. While limiting primary pupils' access to such devices in accordance with recent guidelines by the Department of Education (Department of Education, 2023) seems reasonable for policymakers, teachers, and parents alike, efforts to understand and guide pupils' digital device usage may also be valuable. Further research in this area, though crucial, can be challenging due to the rapid evolution of digital device use over time. For example, Smyth (2024), using data on Growing Up in Ireland (GUI) Cohorts '98 and '08 to explore changes in the lives of adolescents over the period 2011-2012 to 2021-2022, revealed that two-thirds of the Cohort '98 reported having used the internet for homework and that half of the Cohort '08 reported minimal usage of smartphones or tablets for homework purposes.

Within the context of the increased technology usage during the COVID-19 pandemic (e.g., Milosevic et al., 2021) and the ever-expanding integration of technology in education, pupils in Ireland reported a preference for reading on paper over reading on a screen. Additionally, they expressed a tendency to remember things read on paper more easily than things read on a screen. Given that these questions were national additions, comparisons with other countries to determine whether pupils in Ireland are an outlier in this regard are not possible. Nevertheless, monitoring these attitudes towards reading in different modes remains essential. Given that the next cycle of PIRLS in 2026 in Ireland will be administered digitally, it could be valuable to examine how these attitudes and their relationships with reading achievement evolve over time. Tracking these patterns can provide insights into the relationship of digitalisation with reading behaviours and achievement among pupils in Ireland, particularly within the context of the predominantly paper-based instruction and assessment that has characterised Irish schools to date.

According to teachers' reports in 2021, levels of access to digital devices during reading lessons remained similar to those reported in 2011. Also, according to school principals, Ireland had the lowest proportion across all selected reference countries of pupils attending schools in which digital learning resources were available. Furthermore, less than one-tenth of pupils in Ireland had teachers who taught digital literacy skills (e.g., reading, writing, and communicating using digital tools and media) on a daily or near-daily basis, while one-fifth of pupils had teachers who never or almost never taught digital literacy skills. Tasks aimed at developing digital comprehension skills, such as determining the usefulness of a website for a specific purpose or evaluating its credibility, were also used less frequently than a range of other tasks used to help pupils develop comprehension skills.

These findings are noteworthy, especially considering that substantial proportions of the same pupils had teachers who reported participating in formal professional development programmes on integrating technology into reading instruction and on instruction relating to digital literacies. This is further corroborated by data related to primary school teachers from the *Digital Learning Framework national longitudinal evaluation* (Donohue et al., 2024). However, despite the relatively limited exposure of pupils to digital devices during reading lessons, approximately four out of 10 pupils indicated high digital self-efficacy, with only approximately one out of 10 reporting low digital self-efficacy. This relatively high level of digital self-efficacy among pupils may be partly associated with their use of digital devices outside of school.

Against this background, the recognition of digital literacy as fundamental for learners' development and its prioritisation alongside literacy and numeracy in the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033* (Department of Education, 2024b, 2024c) seem warranted. While supporting pupils to become confident and competent digital learners and develop the necessary skills to navigate an increasingly digital world in a safe and ethical manner is a priority in the Strategy, continuing to equip schools with appropriate digital resources and maintenance, and support teachers themselves in the integration of technology into teaching and learning remain crucial. As outlined in the Strategy, guidelines provided by the *Digital Strategy for Schools to 2027* (Department of Education, 2022b) and the *Digital Learning Framework for Primary Schools* (Department of Education and Skills, 2017c) are deemed useful towards this end.

Wellbeing

Approximately half of pupils reported that they sometimes felt tired when they arrived at school, while more than one out of four pupils reported feeling that way every or almost every day, with only a minority reporting never feeling that way. However, the PIRLS 2021 pupil questionnaire did not ask pupils about the reasons behind this fatigue (e.g., early school start times, lengthy commutes, insufficient sleep, stress). Incorporating a follow-up question in future PIRLS cycles could shed light on these factors, facilitating the development of targeted policy initiatives to address this fatigue among pupils. Similarly, approximately half of pupils reported that they sometimes felt hungry when they arrived at school, about one-fifth reported that they felt that way every or almost every day, and one-third that they never felt that way.

The frequency with which pupils arrived tired or hungry at school varied by certain characteristics. Specifically, boys, pupils in the middle and lower socioeconomic groups, and those attending DEIS Urban schools were more likely to feel tired upon school arrival compared to the rest of their peers. Additionally, pupils in the lower socioeconomic group were more likely to feel hungry upon school arrival compared to the rest of their peers.[44] Analysing data from the Irish *Health Behaviour in School-aged Children* (HBSC) study 2022, Gavin et al. (2024) also found statistically significant differences in the frequency with which primary school pupils felt hungry upon school arrival by their social group, favouring those from higher social classes. Although there were no statistically significant differences in the frequency with which pupils arrived at school hungry by school DEIS status, it is important to note that many DEIS schools offer breakfast clubs or vouchers, which may, at least partly, address this issue. The recent expansion of the *School Meals Programme* (see Department of Social Protection, 2024), aimed at providing regular, nutritious meals to primary school pupils to support them in taking full advantage of their education, to an additional 900 primary schools, bringing the total number of schools able to benefit from hot meals to 2,000 since April 2024, is likely to mitigate the issue of hunger, at least for a portion of the affected pupils. The increased likelihood of feeling hungry on arrival at school across the PIRLS cycles may suggest that further expansion of the programme may benefit even more pupils.

Aligned with findings from the *Children's School Lives* study collected between 2019 and 2023 (Sloan et al., 2024), three-quarters of pupils in PIRLS 2021 reported never or almost never experiencing bullying at school, one out of five reported experiencing bullying about monthly, and 6% reported experiencing bullying about weekly, indicating a slightly increased frequency of various bullying behaviours compared to 2016 (a finding that should be interpreted considering the caveats associated with the PIRLS 2021 data described earlier in this report). Pupils who reported never or almost never being bullied performed statistically significantly better in reading than those who reported being bullied on a monthly or weekly basis. In contrast to relevant findings from the Irish HBSC study 2022 focusing on primary school pupils, which showed no statistically significant gender differences in bullying victimisation (Gavin et al., 2024), PIRLS 2021 data indicated that boys were statistically significantly more likely to experience weekly bullying than girls, whereas girls were statistically significantly more likely than boys to almost never experience bullying.[45]

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44 It is important to note that these findings are based on bivariate analysis, which examined the relationships between each individual variable and achievement one at a time. This type of analysis does not account for the role of multiple variables in predicting the frequency with which pupils arrived tired or hungry at school simultaneously and should be interpreted considering this limitation.

45 Differences in the measures used to capture bullying may at least partly account for these contrasting findings; hence, they need to be interpreted with caution.

Regular access to education and to the social aspects that come with school life may also be viewed as contributing to children's wellbeing. While direct comparisons between rates of pupil absence in 2016 and 2021 are problematic due to changes to the questionnaire, it appears likely that absence rates were higher in 2021—perhaps unsurprising given the context of a global pandemic. Additionally, absence rates in 2021 were statistically significantly higher in DEIS Urban Band 1 schools than in non-DEIS schools, suggesting that a continued focus on attendance, health permitting, in DEIS Urban Band 1 schools may be important.

While other aspects of pupils' well-being, school-related experiences, and reading attitudes and behaviours did not vary by pupils' country of birth, pupils born in Ireland were statistically significantly more likely to almost never experience bullying compared with pupils born outside of Ireland. There were also large and statistically significant differences in the proportions of pupils experiencing bullying about weekly by their socioeconomic status, with pupils in the higher socioeconomic group being statistically significantly less likely to experience bullying compared to those in the middle and lower groups. Additionally, the proportion of pupils in DEIS Urban Band 1 schools experiencing bullying about weekly was more than double the proportion reported in non-DEIS schools. Addressing bullying necessitates a systemic and prevention-focused approach for all pupils, driven by such actions as those provided in the Department of Education's whole education approach to preventing and addressing bullying in schools, *Cineáltas: Action Plan on Bullying* (Department of Education, 2022a). However, relevant initiatives can explicitly target those who are most at risk, as identified in this report. These groups include boys, pupils born outside Ireland, pupils from lower socioeconomic backgrounds, and pupils attending DEIS Urban Band 1 schools. It is important to note that the analyses presented in this report are limited to the variables available in PIRLS, which, for example, does not collect data on ethnic background, including Traveller or Roma identity, which could have been useful within this context.

Overall, the PIRLS 2021 data indicate a decline in at least some aspects of pupils' wellbeing since 2016. While it is plausible that COVID-19 and the associated prolonged school closures and remote teaching and learning may well be linked with these findings, maintaining a policy focus on wellbeing in primary schools, including measures to address tiredness, hunger, and bullying, seems warranted. Under the Department of Education's *Wellbeing Policy Statement and Framework for Practice* (Department of Education and Skills, 2019), schools are expected to initiate a wellbeing promotion review and development cycle as part of their SSE process, with the timeline for this having been extended to 2025 due to the pressures associated with COVID-19 (Department of Education, 2021a). Implementation of *Bí Cineálta (Be Kind)*, the updated anti-bullying procedures for schools in Ireland, published in June 2024, are expected to further support a prevention-focused approach to bullying behaviour (Department of Education, 2024a). Although individual components of wellbeing, such as the ones described in this report, can provide valuable insights, future research in this area could employ more integrative analyses of wellbeing components. For instance, latent class analysis techniques could provide a more comprehensive understanding of wellbeing, considering that "contemporary well-being theories embrace multidimensionality as inherent to understanding an overall state of well-being" (Reynolds et al., 2024, p. 18). Such approaches could offer a more nuanced understanding of pupils' overall wellbeing and inform targeted interventions to support their holistic development.

COVID-19: Learning from a unique moment in educational history

Although Fourth Class teachers reported drawing on supports from a range of organisations, such as the Department of Education, PDST, and NCCA, to help facilitate remote learning during the second period of school closures from January to March 2021, the most frequently used supports originated from their immediate working environment. This included assistance from colleagues within their school, as well as other teachers offline and online, and their school management. Data from the *Children's School Lives* study, collected during the first period of school closures in 2020, corroborate these findings, suggesting that schools also benefitted from exchanges with other schools during the first lockdown (Symonds et al., 2020). This underscores the importance of within- and cross-school support systems, even during challenging circumstances.

It is useful to look at the estimates provided by both Fourth Class and Fifth Class teachers regarding the proportion of pupils whose literacy development was negatively affected by challenges due to COVID-19. Fewer pupils were deemed to be negatively affected by these challenges in the autumn of 2021 (the time of the PIRLS assessment) according to Fifth Class teachers than in the previous school year (2020-2021) according to Fourth Class teachers. Additionally, overall, Fifth Class teachers perceived that COVID-19 restrictions had less of an impact on literacy teaching and learning in the autumn of 2021 (the time of the PIRLS assessment) than that perceived in the previous school year (2020-2021) by Fourth Class teachers.

It is of interest to consider these findings in light of data from parents as presented in the *Remote teaching and learning: Summary of Inspectorate research* report for the period January – February 2021 (Department of Education, 2021b). Comparisons of data from parent surveys completed in April 2020 and February 2021 indicated that schools were able to adapt to a great extent and to enhance their capacity to provide remote teaching and learning following the first lockdown. Notably, improvements were more pronounced at primary level, where, overall, provision for remote teaching and learning had been less positive relative to that at post-primary level during the initial school closures in 2020.

The relatively more optimistic perspectives of Fifth Class compared to Fourth Class teachers seem encouraging, suggesting that some pupils at least were able to quickly "catch up". A series of communications to schools from the Department of Education, beginning with guidance on curriculum implementation within the context of the COVID-19 pandemic (Department of Education and Skills, 2020e), which emphasised the importance of promoting language and literacy on the return to school following COVID-19 closures, and initiatives like the expansion of the summer programmes funded by the Department of Education, although attended by only a minority of participating pupils, may have contributed to these positive outcomes. Further research could delve into the perceived impact of COVID-19 among specific pupil subgroups, such as those from lower vs higher socioeconomic backgrounds or those attending DEIS vs non-DEIS schools, to gain deeper insights into the differential perceived effects of the pandemic on literacy development.

Looking ahead

This report has presented extensive findings derived from descriptive and bivariate analyses of PIRLS data for Ireland, selected reference countries, and on average across all PIRLS countries, using achievement data from the PIRLS test and contextual data from the PIRLS pupil, parent, teacher, and school questionnaires. The robustness of the PIRLS 2021 database allows for a

multitude of analytical approaches, which could incorporate achievement and contextual data or focus solely on contextual data. Multivariate analyses examining the simultaneous contribution of a range of factors towards the prediction of PIRLS achievement and/or other non-cognitive outcomes (e.g., pupils' wellbeing) would provide useful insights and would complement the findings presented in this report. Despite the need to consider certain caveats in interpreting the PIRLS 2021 data, further multivariate analyses could elucidate whether predictors of primary school pupils' outcomes in relation to achievement or other important variables have shifted following the prolonged periods of school closures and remote teaching and learning in 2020 and 2021 due to the COVID-19 pandemic. Such investigations could inform targeted policies, initiatives, and instructional practices.

Additionally, while parents' role in shaping their children's academic outcomes has long been acknowledged, research examining their role in shaping children's attitudes and behaviours is scarcer. Considering the pivotal role parents play in their children's development and the importance of children's attitudes and behaviours for academic and other outcomes, future research examining the relationships between pupils' and parents' reading attitudes and behaviours and the extent to which these relationships vary by certain pupil or other contextual characteristics would be worthwhile. Such research could offer valuable insights into the dynamics of parent-child interactions and their implications for educational outcomes.

An in-depth analysis of pupils with special educational needs has not been included in this report. Although information about special educational needs at the individual level is not available in PIRLS, the teacher questionnaire collects some class-level information that could be relevant for future exploration. This includes information on the number of pupils facing challenges in understanding spoken English, the number of pupils with difficulties in reading, as well as the extent to which the needs of pupils requiring additional support—such as those facing mental, emotional, or psychological challenges—affect classroom instruction. While these data have not been analysed in this report, they present opportunities for further exploration in future publications, potentially offering a deeper understanding of the learning environments and needs of pupils with special educational needs.

Continued monitoring of digital literacy and its relationship with reading achievement appears crucial. Building upon the insights gleaned from the findings of the PIRLS 2021 cycle, which highlighted various aspects related to availability of digital resources, digital literacy among pupils and teachers, and attitudes towards digital reading, and in light of the enhanced emphasis on digital skills within the new *Literacy, Numeracy and Digital Literacy Strategy 2024-2033* (Department of Education, 2024b, 2024c), ongoing monitoring could provide critical insights into how well primary schools are adapting to digital learning environments and inform necessary adjustments to educational initiatives in an effort to ensure that primary school pupils are adequately prepared to thrive in an increasingly digital learning environment. Within this context, and as Donohue et al. (2024) highlight, there is no direct assessment of digital literacy in Ireland, in the way that assessments like NAMER, PIRLS, TIMSS, and PISA assess reading, mathematical, and scientific literacy. In light of the findings related to digital literacy presented in this report, consideration should be given to Ireland's participation in digital literacy assessments at both student (e.g., International Computer and Information Literacy Study [ICILS]) and teacher (e.g., Nguyen & Habók, 2024) levels.

In 2024 and 2025, a number of national reports presenting findings for Ireland from NAMER 2021, PISA 2022, and TIMSS 2023 will be published by the ERC. These reports, along with the current report, provide a wide-ranging corpus of information about the experiences of primary

school pupils and post-primary school students in Ireland following the prolonged periods of school closures and remote teaching and learning in 2020 and 2021. They also serve as a valuable touchstone for interpreting the 2021 data and for exploring the broader impacts of the COVID-19 pandemic on learning and wellbeing, enabling a nuanced understanding of how different cohorts of pupils have navigated the challenges posed by COVID-19. As we approach the digital administration of PIRLS 2026, these findings will collectively offer valuable insights into how the educational landscape has evolved and inform strategies to support pupils and teachers in adapting to the increased emphasis on digital literacy and learning, both nationally and internationally.

Besides the extended periods of school closures and remote teaching and learning in 2020 and 2021 due to the COVID-19 pandemic, which caused unprecedented disruption to education systems worldwide, significant policy developments have taken place in Ireland between the PIRLS 2016 and 2021 cycles (e.g., interim review and final years of the *2011 National Strategy*, the rollout of the PLC, the launch of a revised DEIS Plan and expansion of the number of schools with DEIS status, and the completion of the lifetime of the first *Digital Strategy for Schools*). There have also been significant policy developments between the administration of PIRLS 2021 and the publication of the PIRLS 2021 national report for Ireland (Delaney et al., 2023) and the current report (e.g., new *Digital Strategy* launched a few months after the PIRLS 2021 data collection, launch of the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*). Given that data for PIRLS 2026 will be collected two years into the implementation of the *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*, they will, along with other databases, comprise a very useful resource to evaluate progress and identify any necessary adjustments.

In conclusion, the findings from PIRLS 2021 provide a comprehensive overview of the state of literacy-related outcomes in Ireland, revealing both progress and ongoing challenges. The data highlight the impact of the prolonged school closures and remote teaching and learning during the COVID-19 pandemic, as well as the influence of significant policy developments over the past decade. While there have been notable advancements, challenges remain in areas such as digital literacy, pupil wellbeing, and socioeconomic disparities, with the latter also explicitly highlighted in the *Children's School Lives* report that focuses on the impact of social background on children's academic and other outcomes (Devine et al., 2024). PIRLS 2026 will be an important opportunity to evaluate the progress related to literacy made under the new *Literacy, Numeracy and Digital Literacy Strategy 2024-2033*. These forthcoming data, along with insights from other assessments like NAMER, PISA, and TIMSS, will inform the refinement of educational strategies designed to ensure that all pupils in Ireland can achieve their full potential in an increasingly digital world. Continued monitoring and integrative analyses of these data will be crucial for informing targeted policies and practices aimed at enhancing educational outcomes and equity.