

Children, young people and digital reading

Christina Clark and Irene Picton
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Rapid developments in the accessibility and versatility of portable electronic devices over the last decade have opened up many more opportunities for children and young people to read on screen. Indeed, in 2012, we found that children and young people aged 8 to 16 were, for the first time, more likely to say they read online than in print outside class¹. Our later research showed that being given opportunities to read ebooks could be particularly effective for children with the lowest levels of reading engagement, such as reluctant readers and boys. For these children, reading enjoyment increased not only in relation to reading on screen, but also reading in print, indicating that reading digitally had the potential to provide a route into wider reading². Our most recent research with schools has further shown that teachers also feel using technology to support literacy in the classroom may be particularly relevant for certain groups of children, such as struggling readers and boys³.

We were commissioned by The Publishers Association to assess the impact of digital reading on children's literacy levels; particularly how technology impacts reading attainment and enjoyment in young people and children. To do this, we have used data from our latest Annual Literacy Survey of 56,905 children and young people, aged 9 to 18, conducted between January and March 2019, to explore how children and young people today use technology to read and how this is linked to their reading enjoyment, reading behaviours and reading attitudes. In addition, we used data from our 2017/18 Annual Literacy Survey to see how digital reading for this age range is related to reading skill.

This report will:

- Outline children and young people's digital reading habits in 2019
- Explore whether this has changed compared with 2018

¹ Picton, I. and Clark, C., (2015) *The Impact of Ebooks on the Reading Motivation and Reading Skills of Children and Young People*, London, National Literacy Trust

² Ibid.

³ Picton, I., (2019) *Teachers' Use of Technology to Support Literacy in 2018*, London, National Literacy Trust

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- Outline which groups of pupils, in terms of demographics (gender, age and free school meal uptake), are most likely to engage in digital reading
- Explore the benefits of reading digitally by considering links with reading enjoyment, reading attitudes, and wider reading behaviours.

Key findings

One of the strongest emerging themes is that children and young people who are engaged with reading, i.e. who are good readers, who enjoy reading, who read daily and who think positively about reading are more likely to **read both on paper and on screen** than their peers who have low engagement with reading. While most children and young people predominantly interact with different materials in print form, those who have low reading engagement are more likely than those with high reading engagement to consume those materials on screen. This in turn might provide opportunities to better engage them with reading in the future.

More findings include:

Reading format and reading material

- **Print is the dominant reading format** for most children and young people aged 9 to 18 who took part in our survey in 2019. More children and young people aged 9 to 18 say that they read fiction (54.6%), non-fiction (45.0%), comics (27.3%), magazines (31.3%) and poems (21.5%) on paper rather than on screen. However, song lyrics (56.1%) and news (32.1%) were more likely to be read on screen than on paper.
- There was a **small rise** in the number of children and young people aged 9 to 18 who **read fiction** (0.5 percentage points), **non-fiction** (0.7 percentage points) and **comics** (0.7 percentage points) digitally in 2019 compared with 2017/18.
- While a higher percentage of children and young people aged 9 to 18 now read digitally than a year ago, their reading continues to be fairly **dichotomous**: either on paper only or, to a lesser extent, on screen only.

Reading format and demographics

- With the exception of poems, older pupils (aged 14 to 18) are more likely to engage with reading on screen than younger pupils (aged 8 to 14), regardless of the material. Younger pupils are more likely to engage with a variety of materials on paper.
- While girls are more likely than boys to read a greater number of materials both on paper and on screen, similar percentages of boys and girls say that they read particular materials either on paper only, on screen only or both.
- Boys with the lowest levels of reading engagement are more likely to read a range of materials on screen compared with boys who are more engaged readers. For example, **disengaged boy readers** are more than twice as likely to say that they read fiction on screen as their more engaged peers (25.4% vs 9.8%).
- Pupils who receive **free schools meals (FSM)**, our proxy measure of socioeconomic disadvantage, are slightly more likely than their peers who don't receive free school meals to read a variety of materials on screen. For example, 1 in 4 (24.3%) FSM pupils say that they read fiction on screen compared with 1 in 6 (16.3%) non-FSM pupils.

Conversely, with the exception of poems, non-FSM pupils are more likely to engage with a variety of materials on paper. For example, 3 in 4 (73.5%) non-FSM pupils say that they read non-fiction in print compared with 7 in 10 (67.1%) FSM pupils.

Reading format and reading attainment

- Those who read below the level expected for their age are more likely to read a range of materials on screen than their peers who read at or above the level expected for their age. For example, over twice as many children and young people who read below their expected level say that they read poems on screen compared with their peers who read above the expected level for their age (37.5% vs 15.0%).
- Conversely, those who read above the expected level for their age are more likely to read a wide range of materials **both in print and on screen** than their peers who read below their expected level. For example, twice as many children and young people aged 9 to 18 who read above the level expected for their age read fiction both in print and on screen compared with those who read below their expected level (23.8% vs 12.9%).

Reading format and reading enjoyment, behaviour and attitudes

- Children and young people aged 9 to 18 who have high **reading engagement** are less likely to read on screen only and more likely to read both on paper and on screen than those who have low reading engagement. For example, over twice as many children and young people with low reading engagement read fiction on screen compared with those who have high reading engagement (28.2% vs 11.4%). Conversely, nearly three times as many children and young people who have high reading engagement say that they read fiction both on screen and in print compared with those who have low reading engagement (18.7% vs 6.9%).
- Children and young people aged 9 to 18 who **enjoy reading** are more likely to say that they read a range of materials both on paper and on screen. For example, twice as many children and young people who enjoy reading read fiction across both media compared with children who don't enjoy reading (15.9% vs 8.2%). Children with the lowest levels of reading enjoyment are most likely to report reading on screen only. For example, 23.1% of those who don't enjoy reading read fiction on screen versus 14.8% of those who enjoy reading.
- Children and young people aged 9 to 18 who don't **read daily** are much more likely to say that they read a range of materials on screen only, while those who read daily are more likely to say that they read a range of materials on screen as well as in print. For example, 28.1% of those who read less often than daily read comics on screen compared with 20.1% of those who read daily.
- Children and young people aged 9 to 18 with the lowest levels of **reading confidence** are more likely to read a variety of materials on screen than those with average or high reading confidence. For example, 23.3% of those who have low reading confidence read fiction on screen compared with 15% of their peers who have high reading confidence. By contrast, those with high reading confidence are generally more likely to read a range of materials both on paper and on screen. For example, nearly twice as many children and young people with high reading confidence say that

they read fiction on screen as well as in print compared with their peers with low reading confidence (16.9% vs 9.3%).

- Children and young people aged 9 to 18 who have poor **reading attitudes** are more likely to read a range of materials on screen compared with their peers who have average or positive reading attitudes. For example, twice as many children and young people with poor reading attitudes say that they read fiction on screen compared with their peers who have positive reading attitudes (25.6% vs 11.7%). Conversely, those who have good reading attitudes are more likely to read a range of materials both on screen and on paper. For example, twice as many children and young people who have positive reading attitudes say that they read fiction both on screen and on paper compared with their peers who have poor reading attitudes (16.9% vs 7.5%).

While most of the reading done by children and young people in 2019 is still paper-based, **reading both on paper and on screen is associated with higher reading attainment and reading engagement.** This may simply reflect that the most engaged, frequent and confident readers, and those with the highest levels of reading attainment, are those most likely to seek reading materials across a range of formats. Nevertheless, it may also suggest that offering children and young people the opportunity to read not just a wide range of materials but also to access them through different formats may hold benefits not just for those children less engaged by print reading but potentially for all readers.

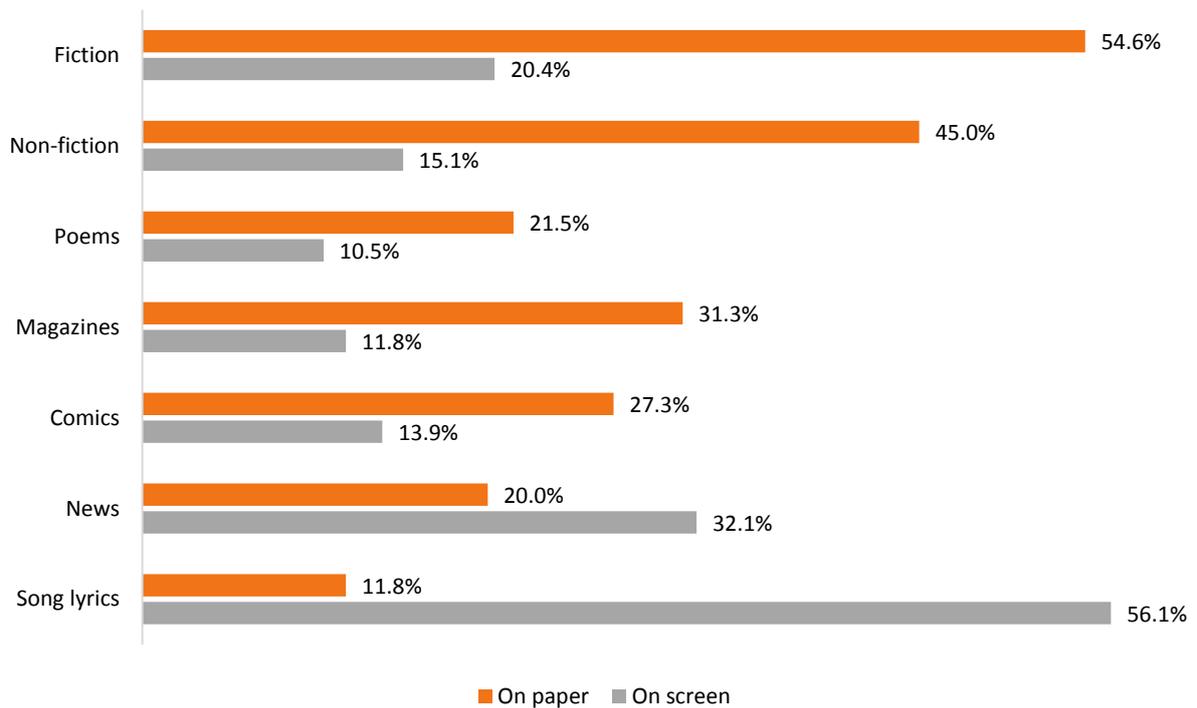
Indeed, those pupils who receive FSMs and those who have low reading engagement are more likely than those who don't receive FSMs and those with high reading engagement to access reading materials on screen. We also know that technology that is used supportively can provide effective opportunities to introduce them to the wider world of reading. It is therefore important to consider how best to support all readers, whatever their preferred reading format and socioeconomic background.

Children and young people: reading format, reading material and reading frequency

Since 2005, our Annual Literacy Survey has asked children and young people what types of materials they read in their free time. In 2017, in order to better understand children and young people's reading habits in an increasingly digital world, we started asking whether they read certain materials on paper and/or on screen.

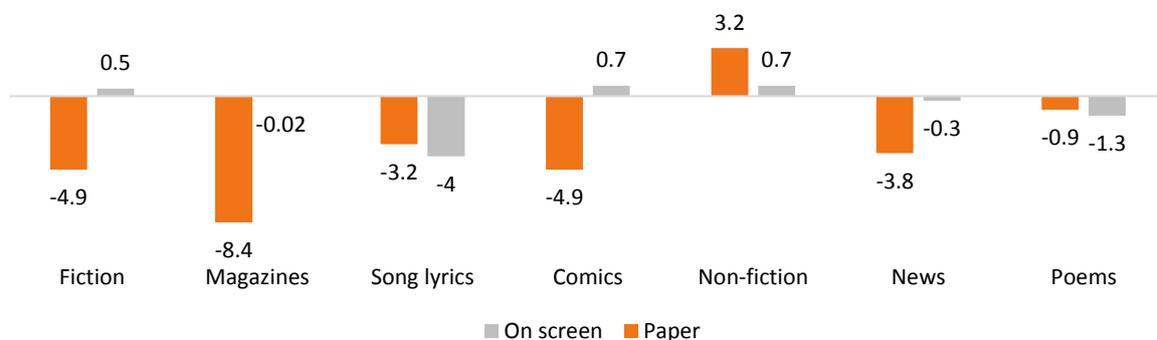
As can be seen in **Figure 1**, print is the dominant format for most children and young people's reading in 2019. More children and young people aged 9 to 18 (n = 56,905) say that they read fiction, non-fiction, comics, magazines and poems on paper than on screen. However, song lyrics and news were more likely to be read on screen than on paper.

Figure 1: Materials read either on screen or on paper outside school at least once a month in 2019 by children and young people aged 9 to 18



On average, children and young people aged 9 to 18 read 2.17 (SD = 1.31) materials on screen in their free time at least once a month in 2019, compared with 2.82 (SD = 1.49) materials in print. Notably, while the reading of most materials across both formats declined between 2017/18 and 2019, there was a small rise in the number of children and young people who read fiction, non-fiction and comics digitally compared to the year before (see **Figure 2**).

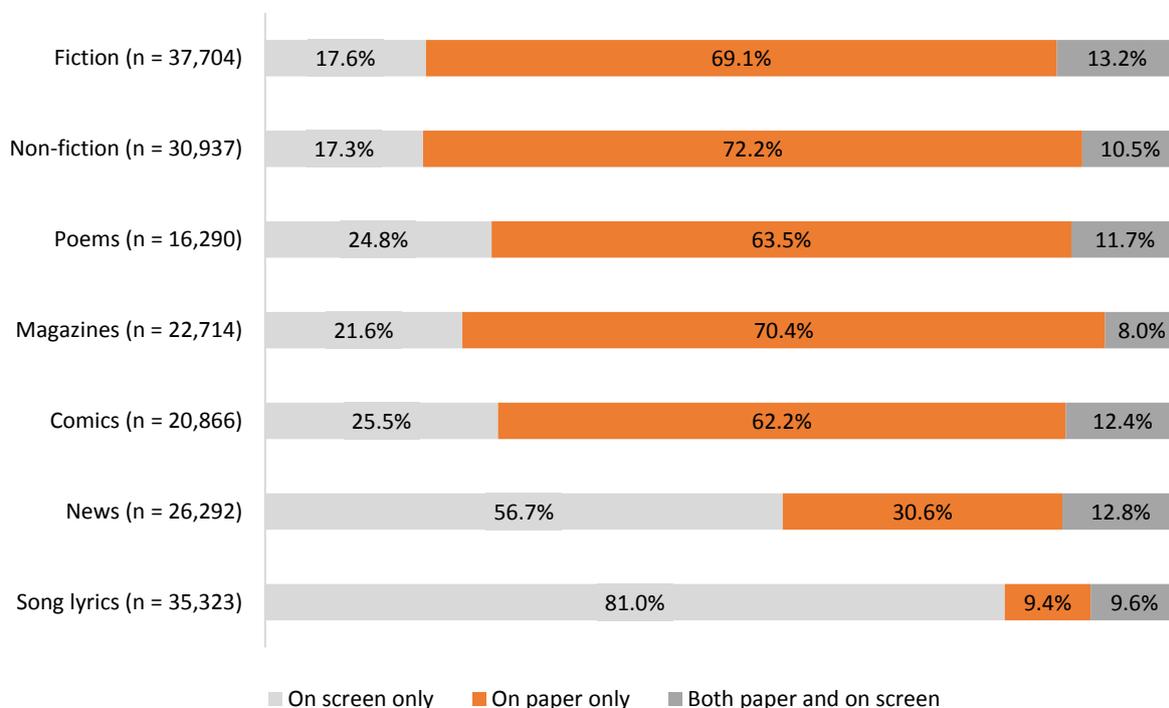
Figure 2: Percentage point change in materials read outside class at least once a month between 2017/18 and 2019 by children and young people aged 9 to 18



While a higher percentage of children and young people now read digitally than a year ago, their reading continues to be relatively dichotomous: either on paper only or, to a lesser extent, on screen only. Very few of those aged 9 to 18 actually read in both formats (see

Figure 3). Fiction was the material most likely to be read in both print and on screen, but just 13% say they read in this way.

Figure 3: Materials read either on paper, on screen or in both formats outside school by children and young people aged 9 to 18

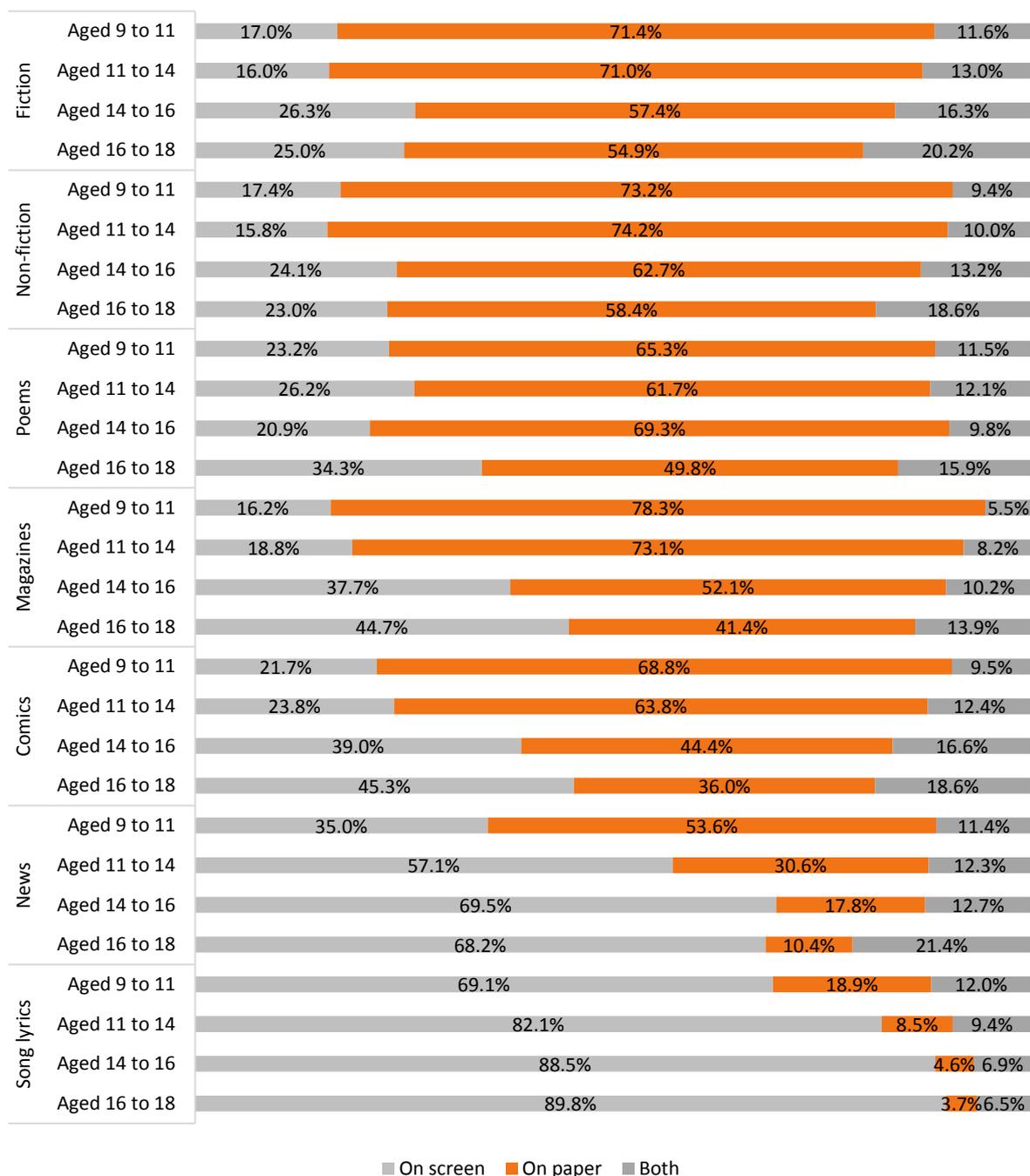


Who is most likely to read digitally?

Reading format and age group

Figure 4 outlines the level of engagement children and young people have with different reading formats depending on their age. It shows that reading on screen is inversely related to age, with more young people aged 14 to 18 than aged 9 to 14 saying that they read a range of materials on screen. They are also more likely to say that they read across both formats, with the exception of song lyrics.

Figure 4: Reading format and reading material by age group for children and young people aged 9 to 18

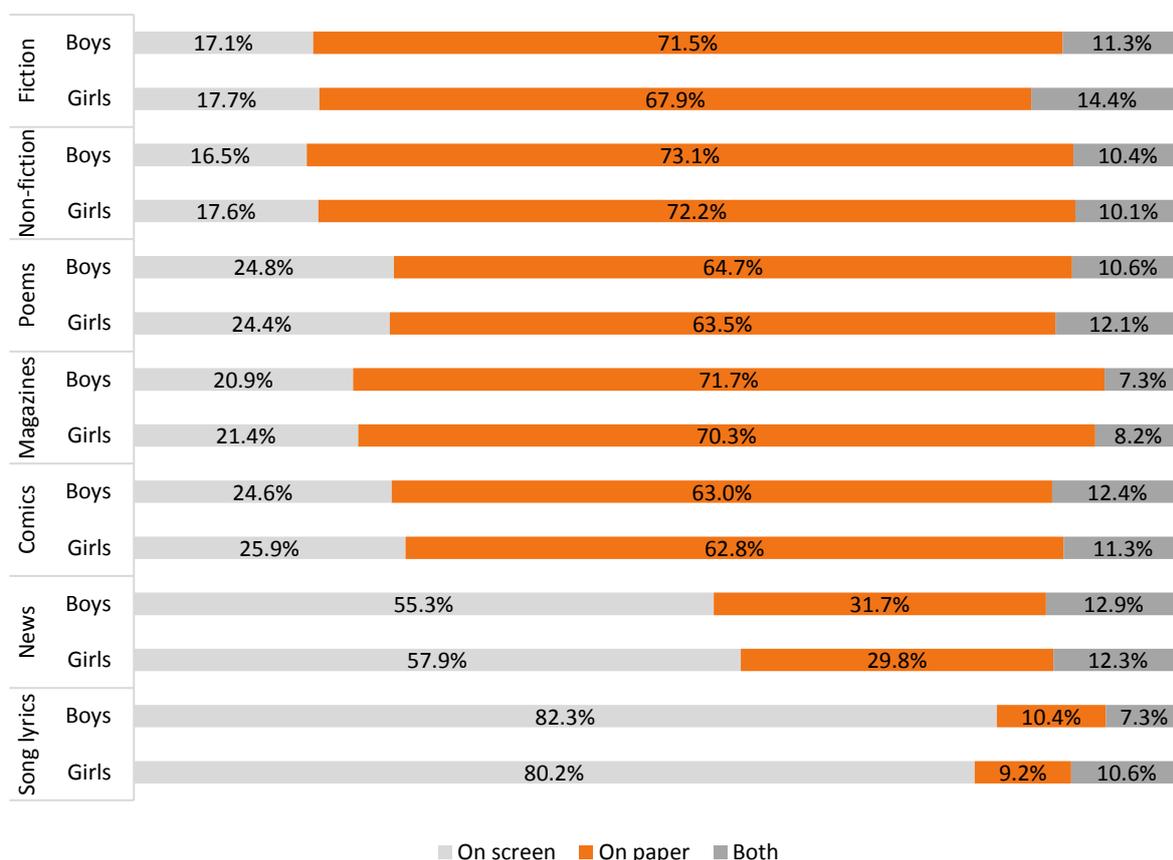


Reading format and gender

There were few differences in the variety of reading material and format in relation to gender. Both boys and girls read more widely on paper than on screen, with boys reading an average of 2.8 different things on paper (SD = 1.46) compared with 2.1 on screen (SD = 1.29), and girls an average of 2.9 different things on paper (1.48) compared with 2.2 on screen (SD = 1.49).

While girls are more likely than boys to read a wider range of materials, when we look at the behaviour of those who say that they read particular materials, we can see that similar percentages of boys and girls read these materials either on paper only, on screen only or both (see **Figure 5**). More girls say they read fiction, poems, magazines and song lyrics both on paper and on screen, while more boys read comics both on paper and on screen.

Figure 5: Reading format and reading material by gender for children and young people aged 9 to 18

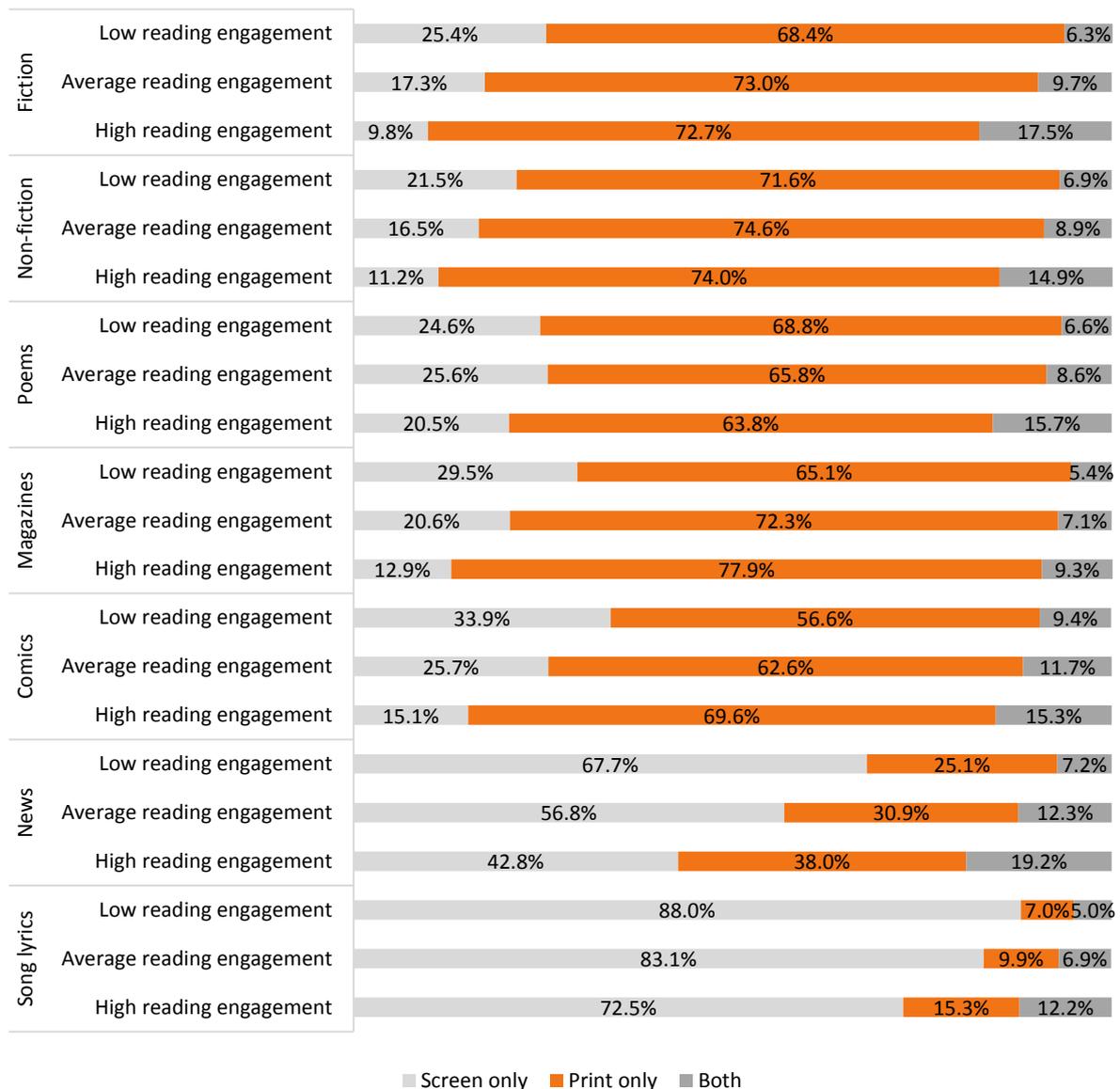


Reading format and disengaged boy readers

Boys are less likely than girls to say they enjoy reading, and more likely to perform less well in reading assessments. We were therefore interested in exploring any associations between reading format and the least engaged boy readers (please see p. 12 for how we have defined engagement).

We found that boys with the lowest levels of reading engagement are more likely to read a range of materials on screen compared with more engaged boy readers (see **Figure 6**). For example, they are more than twice as likely to say that they read fiction on screen as their more engaged peers (25.4% vs 9.8%).

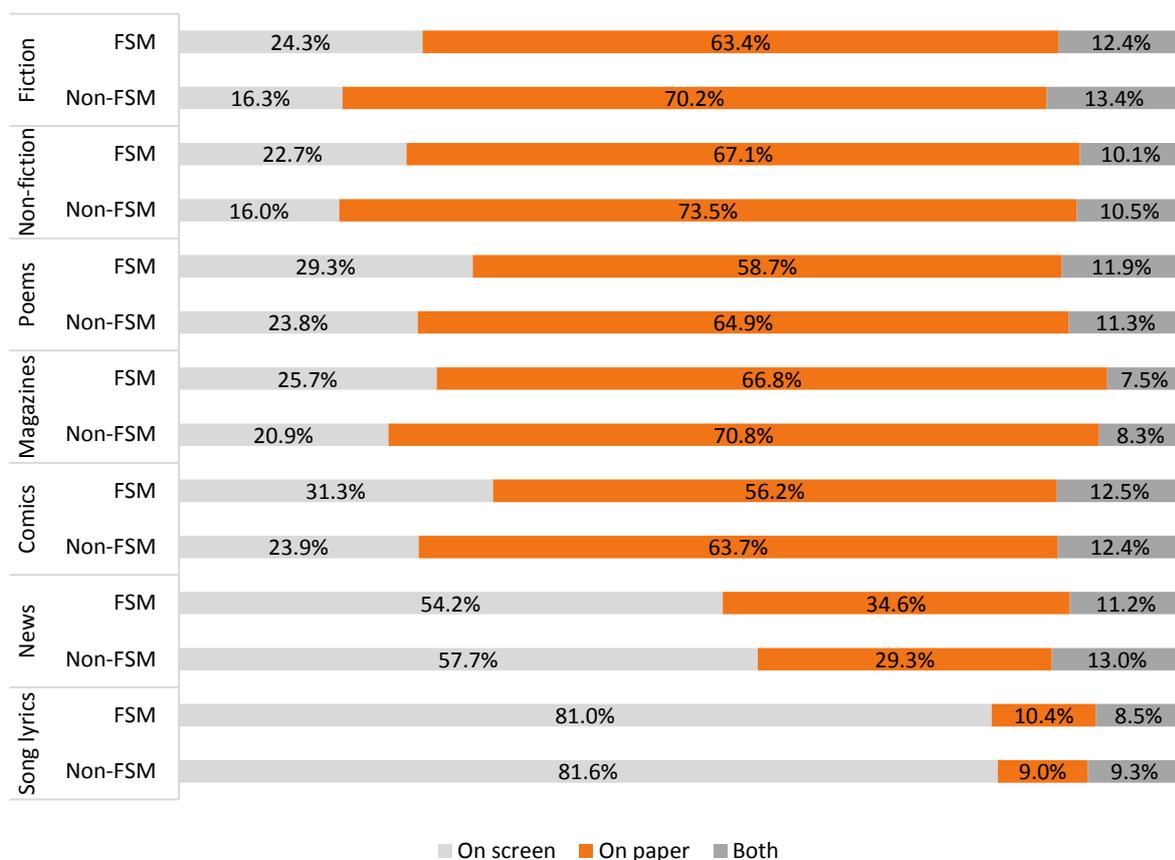
Figure 6: Boys' reading engagement by reading format and reading material – boys aged 9 to 18



Socioeconomic background

Pupils who receive free schools meals (FSM), a proxy measure of socioeconomic disadvantage, are slightly more likely than their peers who don't receive free school meals to read a variety of materials (including fiction, magazines, comics, non-fiction and poems) on screen (see **Figure 7**). Conversely, with the exception of poems, non-FSM pupils are more likely to engage with a variety of materials on paper. They were, however, more likely to say that they read song lyrics and news on screen than FSM pupils.

Figure 7: Reading format and socioeconomic background – children and young people aged 9 to 18



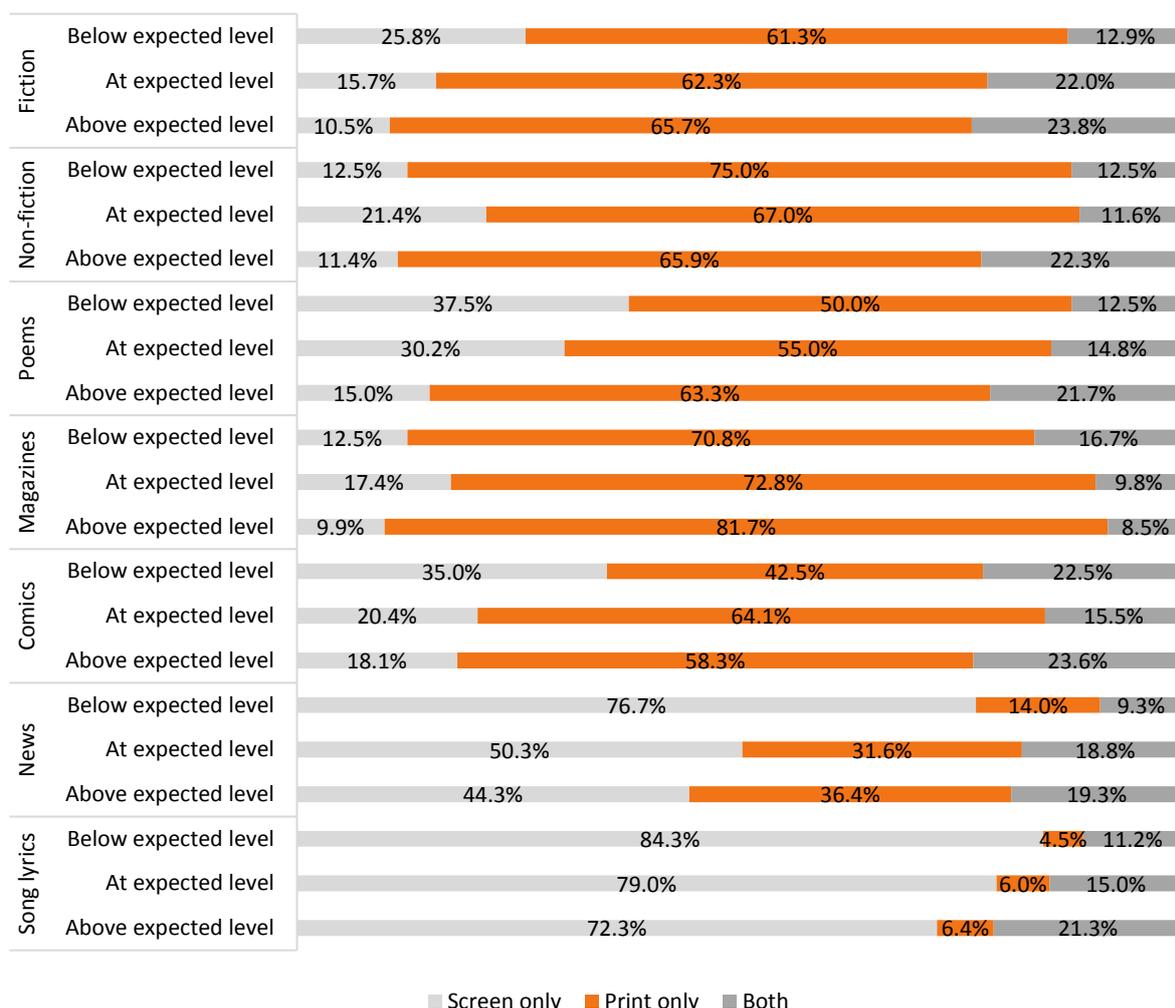
Reading format and attainment

In 2017/18 we had reading skill data for 1,098 pupils aged 11 to 15 who took part in our Annual Literacy Survey. Schools measured reading skill using different assessments, so for consistency we categorised pupils into three groups depending on whether or not they were reading at the level expected for their age: reading below expected level (13.2%), reading at expected level (75.5%) and reading above expected level (11.3%).

Figure 8 looks at those who read certain materials and how their reading level relates to the format in which they read that material. It shows that those who read below the level expected for their age are more likely to read a range of materials on screen than their peers who read at or above the level expected for their age. For example, over twice as many children and young people who read below their expected level say that they read poems on screen than their peers who read above their expected level (37.5% vs 15.0%).

Conversely, those who read above the expected level for their age are more likely to read a range of materials in both print and on screen than their peers who read below their expected level. For example, it can be seen that over twice as many children and young people aged 9 to 18 who read above the level expected for their age read fiction both in print and on screen compared with those who read below their expected level (23.8% vs 12.9%).

Figure 8: Reading format, reading material and reading attainment – children and young people aged 9 to 18



Reading format and reading enjoyment, attitudes and behaviours

Reading engagement

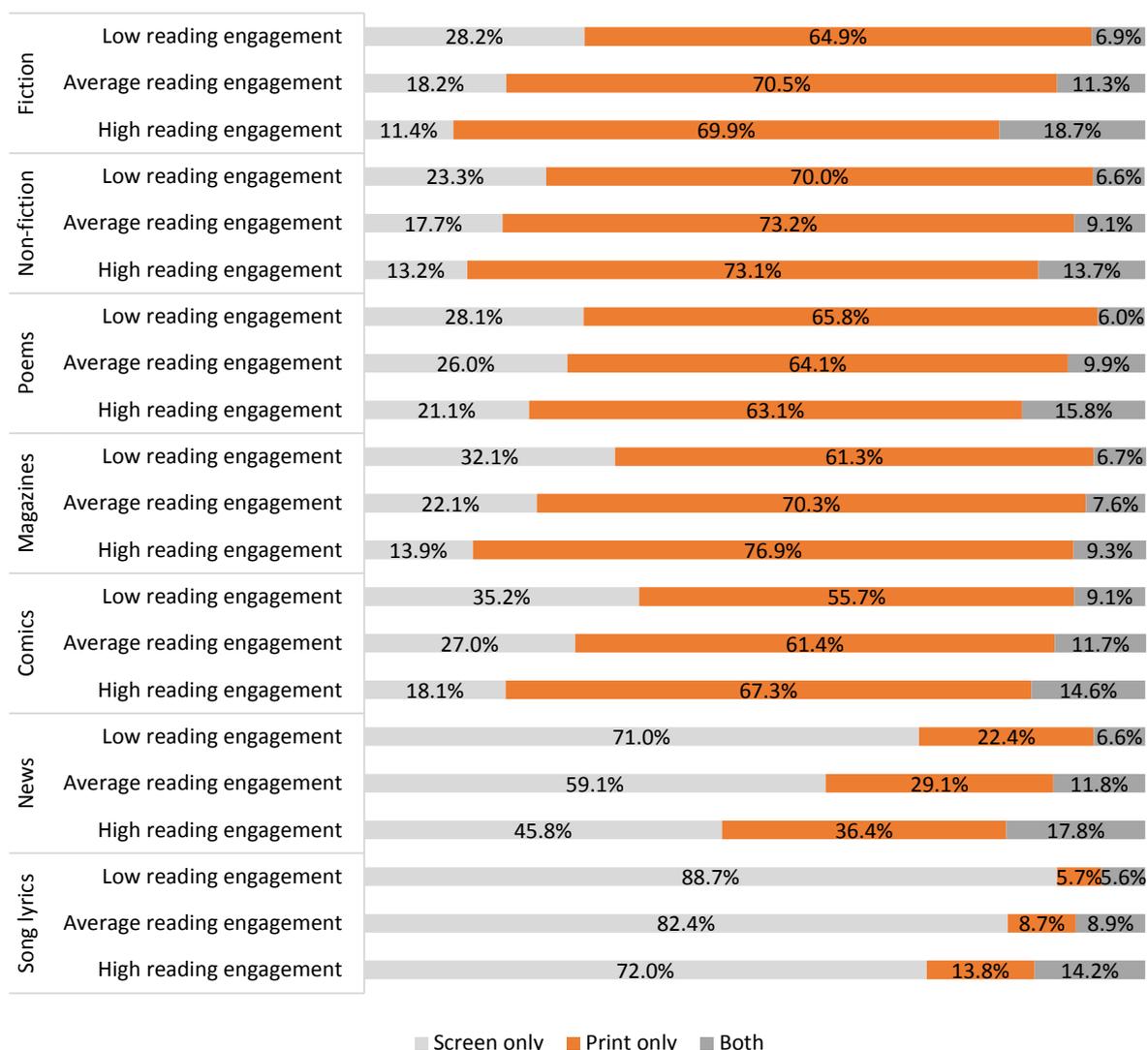
We were also keen to explore how children and young people who are engaged with reading (i.e. those who enjoy reading, read daily outside school and have positive attitudes towards reading) differ from those who are less engaged in terms of their engagement with different formats, to give a more comprehensive picture of the relationships.

To this end, we constructed a variable that summed the responses across all of our reading variables, with positive responses being allocated higher scores (for a total of 42 scores). We then divided the sample into four quartiles to explore how those with low literacy engagement (bottom quartile) fare in terms of their engagement with formats compared with those with high literacy engagement (top quartile)⁴.

⁴ Quartiles look at the distribution of responses and divide those into four roughly equal parts. The first quartile (also called the lower quartile) is the number below which lies the bottom 25 percent of data. The second quartile (the median) divides the range in the middle and has 50 percent of the data below it. The third quartile (also called the upper quartile) has 75 percent of the data below it and the top 25 percent of the data above it. In our study, the quartile scores are divided into the following four groups: bottom = 0-26; lower and upper middle = 26.01 to 36.99; top = 37-42.

Children and young people who have high reading engagement are less likely to read on screen only and more likely to read both on paper and on screen than those who have low reading engagement (see **Figure 9**). Echoing the findings relating to reading attainment, this is particularly evident in relation to materials such as fiction, non-fiction and news, which children with high reading engagement are more than twice as likely to access in both formats than those with low reading engagement.

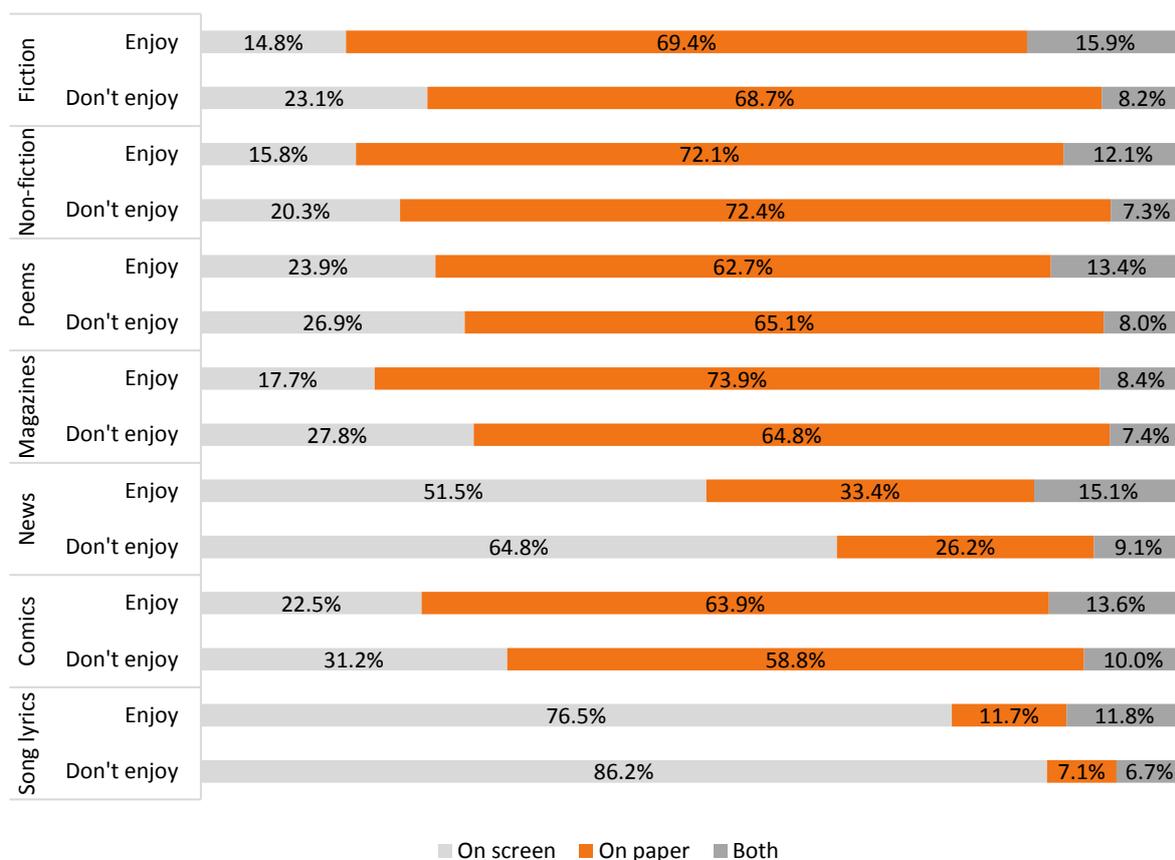
Figure 9: Reading material, reading format and reading engagement – children and young people aged 9 to 18



Enjoyment of reading in relation to reading in print, on screen or both

Our own studies, as well as those by others, have repeatedly highlighted the importance of reading enjoyment in children and young people’s reading. Indeed, children and young people who enjoy reading are more likely to say that they read a range of materials both on paper and on screen, while those who don’t enjoy reading are more likely to read a range of materials on screen (see **Figure 10**).

Figure 10: Reading material, reading format and reading enjoyment – children and young people aged 9 to 18

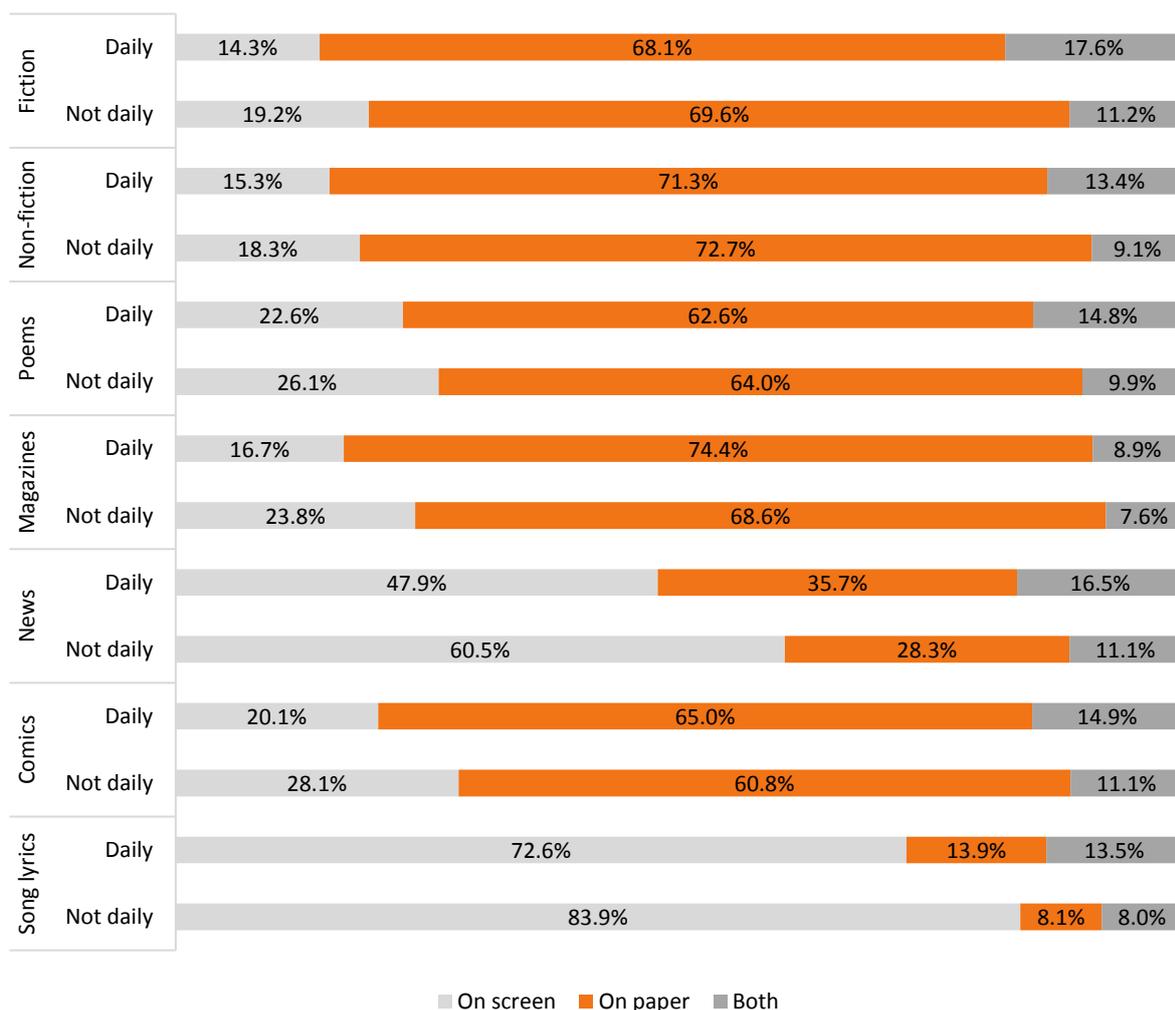


These findings may simply indicate that children and young people who enjoy reading seek opportunities to read across any format. However, while it might also be surmised that children who don't enjoy reading might potentially prefer to read, when they have to, on screen, the data does not allow us to determine this.

Reading frequency

We also asked children and young people how often they read in their free time. **Figure 11** shows that children and young people who don't read daily are much more likely to say that they read a range of materials on screen only, while those who read daily are more likely to say that they read a range of materials on screen as well as in print. Those who read daily might simply have greater access to print or on-screen reading materials, however this is beyond the scope of this report.

Figure 11: Reading material, reading frequency and reading format – children and young people aged 9 to 18

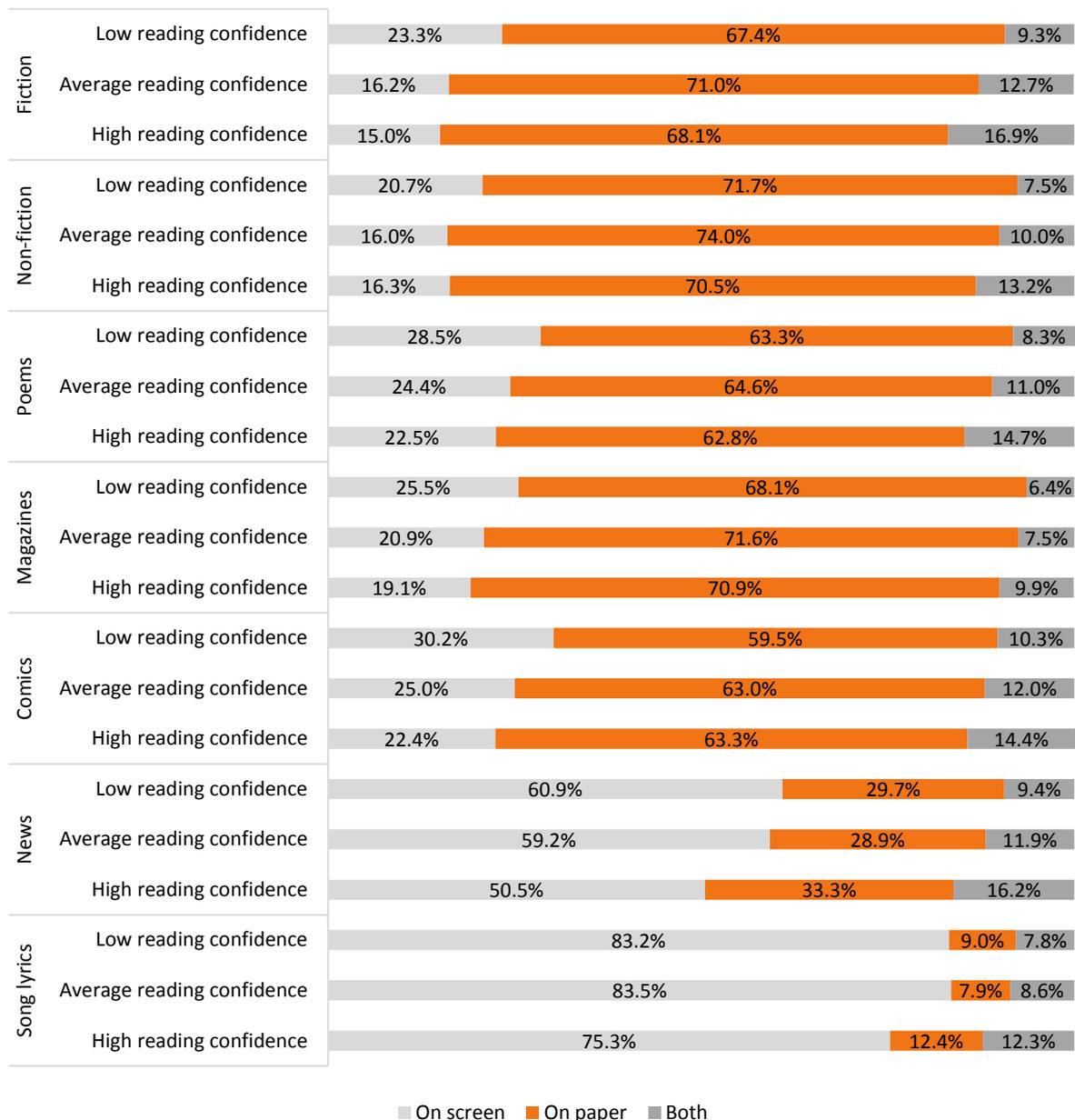


Reading format and reading confidence

We know that how confident a child or young person feels about their reading is related to their wider reading behaviour. We therefore also asked children and young people to indicate how good a reader they think they are on a scale of 1 to 10, where 1 = not a very good reader at all and 10 = a very good reader.

We then split them into quartiles to see how children and young people with low reading confidence differ from those with high reading confidence in terms of their engagement with different reading formats. Focusing on pupils with the lowest levels of reading confidence, **Figure 12** shows that this group of children and young people are more likely to read a variety of material on screen than those with average or high reading confidence. By contrast, those with high reading confidence are generally more likely to read a range of materials both on paper and on screen.

Figure 12: Reading format, reading material and reading confidence – children and young people aged 9 to 18

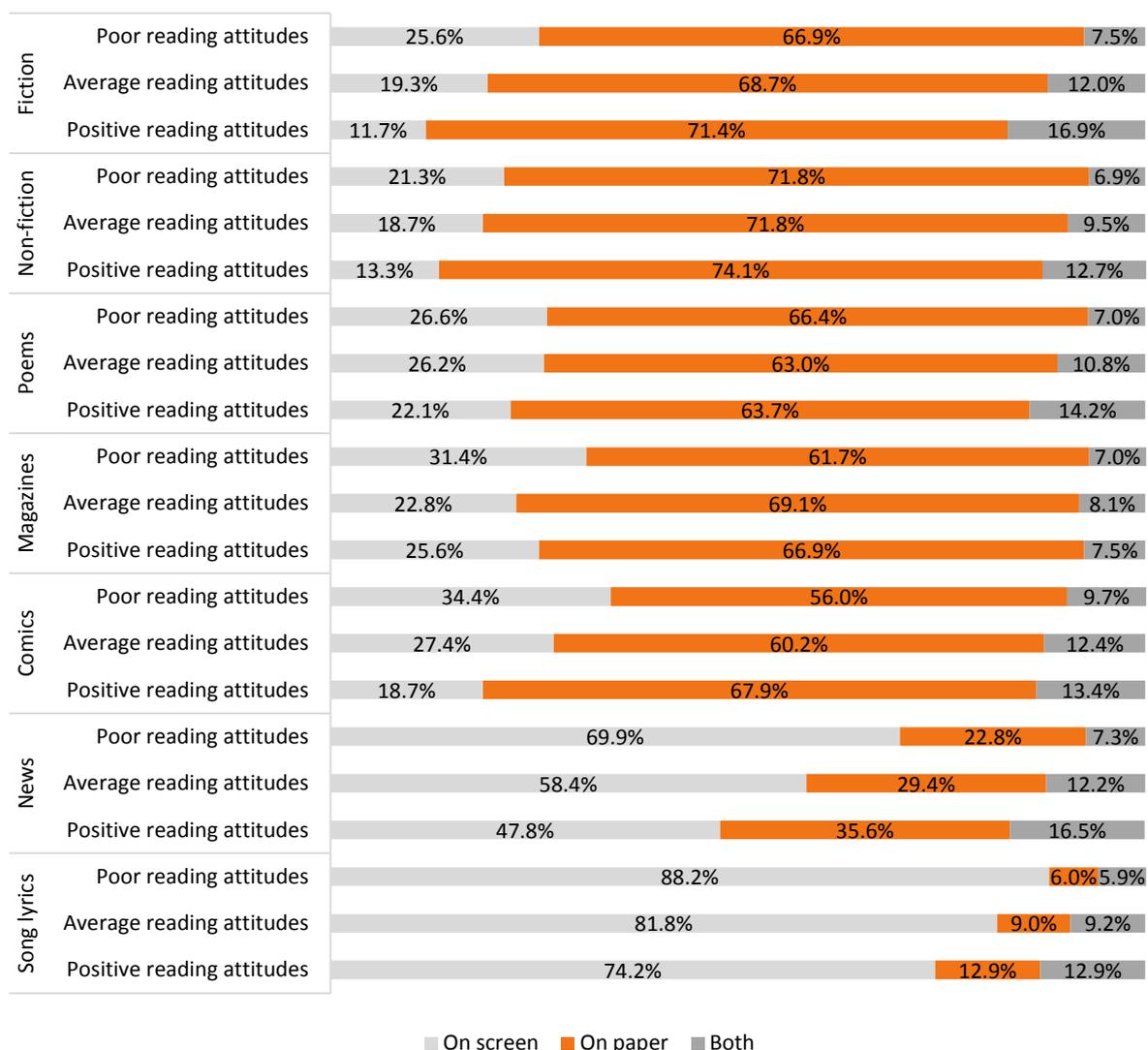


Attitudes towards reading

Our survey also asked children and young people about their attitudes towards reading, requiring them to indicate their agreement or disagreement with six statements. To explore how reading attitudes are related to the reading of certain materials across print and on screen, we collapsed the six statements into one variable and divided the sample into quartiles to represent those who have low/poor reading attitudes, those who have average reading attitudes and those who have high/positive reading attitudes.

As can be seen in **Figure 13**, children and young people who have poor reading attitudes are more likely to read a range of materials on screen compared with their peers who have average or positive reading attitudes. Conversely, those who have positive reading attitudes are more likely to read a range of materials both on screen and on paper. For example, twice as many children and young people who have positive reading attitudes say that they read fiction both on screen and on paper compared with their peers who have poor reading attitudes (16.9% vs 7.5%).

Figure 13: Reading materials, reading attitudes and reading formats – children aged 9 to 18



Summary and discussion

Findings from our surveys of children and young people in 2017/18 and 2019 indicate that print remains the dominant reading format across all age groups, with most children reading a variety of materials on paper. However, a higher percentage of children and young people aged 9 to 18 read digitally in 2019 than in 2017/18, with a slight increase in this age group reading fiction, non-fiction and comics in this format. Furthermore, older pupils (those aged 14 to 18) were found to be more likely to read on screen than younger age groups, perhaps in part due to greater access to portable devices such as mobile phones.

While all children read more widely on paper than on screen, girls read most widely across both formats. However, boys with the lowest levels of reading engagement were more likely to say that they read a range of materials on screen when compared to those with high reading engagement. Indeed, they were more than twice as likely to read fiction on screen as their more engaged peers. In addition, children and young people eligible for free school meals were slightly more likely than their peers to read a variety of materials on screen. Further research would allow a deeper exploration of the direction of these relationships; for example, to what extent disengaged boys and those eligible for free school meals might prefer to read on screen, or whether they might read more or less if this format were not available.

While most of the reading done by children and young people in 2019 is still paper-based, **reading both on paper and on screen is associated with higher reading attainment and reading engagement.** This may simply reflect that the most engaged, frequent and confident readers, and those with the highest levels of reading attainment, are those most likely to seek reading material across a range of formats. Nevertheless, it may also suggest that offering children and young people the opportunity to read not just a wide range of materials but also to access them through different formats may hold benefits not just for those children less engaged by print reading but potentially for all readers. Indeed, those who have low reading engagement are more likely than those with high reading engagement to consume these materials on screen. We also know that technology that is used supportively and effectively can provide opportunities to better engage those who are less enthused with reading in the future.

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