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Policy Brief

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and children's reading attitudes and behaviors

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SUMMARY

When children have positive reading attitudes and behaviors, they generally also demonstrate strong reading skills. Strong reading skills enable children to access and learn content in a variety of subjects and reap a host of other academic and nonacademic benefits. Thus, it is of fundamental importance to ensure that children are motivated to read from an early age. One especially strong influence in children's lives is their parents. This brief examines whether parents' reading attitudes and behaviors are shared by their children. It looks specifically at the extent to which children enjoy reading and read frequently for fun when their parents also do so and whether it is more common for some children (boys or girls, or children with more or less educated parents) to share their parents' positive attitudes and behaviors. Though we can't say with certainty if or how parents pass their positive reading attitudes and behaviors on to their children, our results do lend some credence to the idea that the "reading bug" might be contagious.

Drawing on data on 4th-grade students from the 2011 Progress in International Reading Literacy Study (PIRLS), this brief can inform policy efforts to promote positive reading attitudes and behaviors in children.



POLICY IMPLICATIONS

- 1. Children tend to share their parents' positive reading attitudes and behaviors. In most of the 50 education systems studied, it is more common for children to enjoy reading and read frequently for fun when their parents also do so. In light of this, reading policies and programs might consider parents' reading attitudes and behaviors as possible levers for fostering their children's interest and engagement in reading.
- 2. It is more common for girls than boys to enjoy reading and read frequently, among those children whose parents have positive reading attitudes and behaviors. This is true in at least three-quarters of the education systems studied. Policymakers might consider whether boys would benefit from targeted policies or programs to promote their interest and engagement in reading.
- 3. Compared to the differences in reading enjoyment and frequency between boys and girls, differences based on parents' level of education are not as common or consistent. In only about half the education systems studied is it more common for children with high parental education to enjoy reading and read frequently, among those children whose parents have positive reading attitudes and behaviors. In these systems, policymakers might consider policies or programs targeting children with less educated parents, even when the parents otherwise have positive reading attitudes and behaviors.
- 4. It is more common for both parents and children to enjoy reading than to read frequently. This suggests that additional work is needed to determine strategies that can translate positive thoughts about reading into positive reading actions.

INTRODUCTION

Reading for pleasure and reading enjoyment are widely viewed as prerequisites to reading achievement and other academic and nonacademic outcomes, such as achievement in other subjects, better communication skills, reduced depressive symptoms, and increased creativity (The Reading Agency, 2015). With all of these reported benefits, especially those related to academic achievement, a focus of education policy has routinely been to find ways to motivate children to read from an early age.

Research shows that, from an early age, a significant contributor to children's motivation to read and reading achievement is their parents' attitudes and behaviors toward reading. For example, studies have shown that parents' enjoyment of reading and their reading for pleasure are related to children's motivation to read (Baker & Scher, 2002), children's own recreational reading (Mullan, 2010; Wollscheid, 2013), and children's reading achievement (Mullis, Martin, Foy, & Drucker, 2012b). Moreover, parental prioritization and encouragement of reading have been found to be positively related to children's reading behaviors (Neuman, 1986; Strommen, & Mates, 2004). Students' own attitudes and behaviors toward reading also play a role. As one example, the 2011 Progress in International Reading Literacy Study (PIRLS) showed that the greater enjoyment and frequency of reading that students reported, the higher their reading achievement scores (Mullis et al., 2012b).

One specific area of exploration, suggested by such research, is the following: do children share their parents' thoughts and actions with regard to reading? Moreover, does the pattern differ for different groups of children?

For example, some studies have found that girls are more influenced by the reading behaviors of their parents than are boys, but that boys tend to be influenced more by their fathers than their mothers (Mullan, 2010; Wollscheid, 2013).

At least one study (Wollscheid, 2013) also found a positive relationship between children's reading

behaviors and their parents' level of education (albeit not as strong as the relationship with their parents' reading behaviors).

Most of these studies, however, were based on one or a small number of education systems with no nationally representative data, or looked at attitudes and behaviors separately. In this brief, we examine the relationship between parents' reading attitudes and behaviors and those of their children using large-scale international data from 50 education systems, and consider reading attitudes and behaviors simultaneously. Specifically, this brief aims to explore whether parents' positive reading attitudes and behaviors are "contagious," providing a valuable descriptive picture, across numerous and diverse education systems, of the extent to which children's reading attitudes and behaviors mirror those of their parents. This brief can inform efforts by policymakers to craft interventions designed to motivate children to read.

DATA

This policy brief uses data from the 2011 cycle of PIRLS, which was conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA) and has been administered every five years since 2001. It is a large-scale cross-national assessment of 4thgrade students' reading achievement, and also collects extensive background information on the participating students and their parents, schools, and teachers. We primarily used the background data collected by the student and parent questionnaires to explore the patterns between parents' reading attitudes and behaviors, and those of their children. Specifically, we examined reading enjoyment and reading frequency. We also used the reading achievement scores, but, in a more supplementary way, to provide context for our results. The results represent about 270,000 students across the 50 education systems that administered both the student and parent questionnaires in PIRLS 2011.1



RESULTS

In order to explore the relationship between parents' and children's reading attitudes and behaviors, we analyzed data from two overlapping questions from the PIRLS 2011 student and parent questionnaires. The first question, focused on reading attitudes, asked children and parents to identify the extent to which they agreed with the statement "I enjoy reading." In this brief, children and parents who "enjoy reading" are those who *agreed a lot* with the statement; those who "do not enjoy reading" are those who *disagreed a little* or *disagreed a lot* with the statement.

The second question focused on reading behaviors, with parents being asked "When you are at home, how often do you read for your own enjoyment?" and children being asked a similar question "How often do you read for fun outside of school?" Children and parents who "read frequently" are those who answered every day or almost every day to their respective question; those who "do not read frequently" are those who answered never or almost never.

In the accompanying exhibits, we report the percentages of parents and children in the various categories, with parents represented by bars and children by diamonds. Throughout the brief, positivity (e.g., positive parents) refers to those who enjoy reading or who read frequently and negativity (e.g., negative parents) to those who do not. In Exhibit 1, high-performing education systems (i.e., those that had an average score at or above the PIRLS 2011 High International Reading Benchmark of 550) are highlighted in blue.

Do parents and children enjoy reading and read frequently?

Exhibit 1 provides a descriptive picture of reported reading attitudes and behaviors across education systems. It shows the percentages of parents and children who—according to the earlier definitions—enjoy reading and who do not enjoy reading (in the first panel) and who read frequently and who do not read frequently (in the second panel).

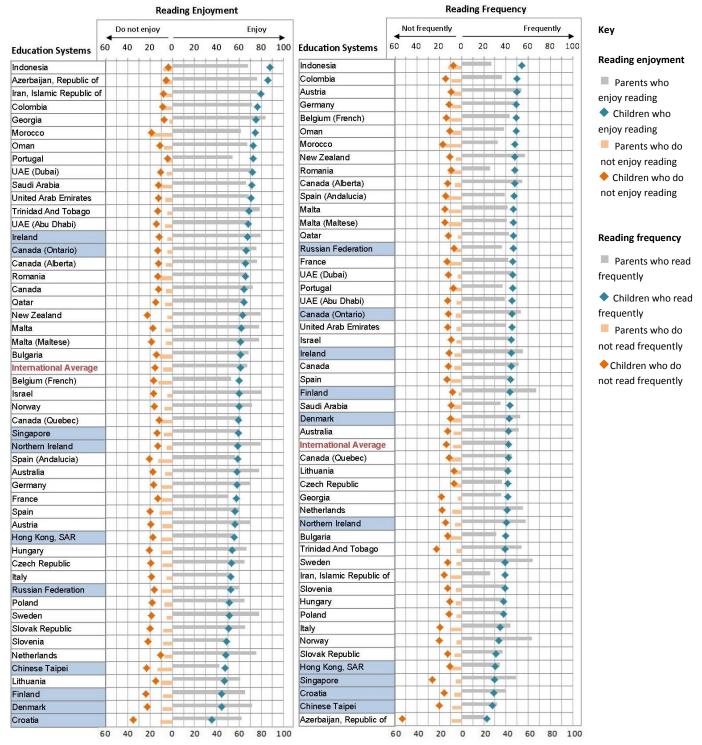
In all but one of the 50 education systems studied,² higher percentages of both parents and children enjoy reading than do not enjoy reading; in other words, positive attitudes toward reading are more common than negative ones (Exhibit 1).³ On average internationally, 68 percent of parents and 61 percent of children enjoy reading, compared to eight percent of parents and 16 percent of children who do not enjoy reading. The trend in reading enjoyment is also true for reading frequency, or

reading behaviors. Again, in all but one of the education systems studied, positive reading behaviors are more common than negative ones.⁴ On average internationally, 43 percent of parents and 42 percent of children read frequently, compared to eight percent of parents and 14 percent of children who do not.

Education systems vary widely in the percentages of parents and children who enjoy reading and who read frequently, but as the results above indicate, reading frequency generally lags behind reading enjoyment. On average internationally, a higher percentage of both parents and children report that they enjoy reading (68 and 61 percent, respectively) than read frequently (43 and 42 percent, respectively). The percentage of parents who enjoy reading ranges from 42 percent in Chinese Taipei to 84 percent in Georgia, whereas the percentage of those who read frequently ranges from 21 percent in Azerbaijan to 67 percent in Finland. The percentage of children who enjoy reading ranges from 35 percent in Croatia to 88 percent in Indonesia, whereas the percentage of those who read frequently ranges from 23 percent in Azerbaijan to 54 percent in Indonesia. Azerbaijan is an extreme example; there, at least threequarters of parents and children enjoy reading, compared to less than one-quarter of each who read frequently.

Another interesting difference between reading attitudes and behaviors is the divergence in terms of who is more positive: parents or children. Parents more commonly enjoy reading than children; this is true in more than half the education systems. In these systems, parents have more positive attitudes than children, with the difference between the percentage of parents and of children who enjoy reading ranging from four percentage points in Spain to 27 percentage points in Croatia, Denmark, and the Netherlands. In about one-fifth of the education systems, the percentages of children who enjoy reading are higher than the percentages of parents, with the biggest difference reported for Indonesia (20 percentage points). In terms of reading frequency, however, the results favor parents in about the same number of countries as they favor children. In almost two-fifths of education systems, higher percentages of parents than children read frequently (up to 30 percentage points higher for parents in Norway); and, in another two-fifths of the education systems, higher percentages of children than parents read frequently (up to 27 percentage points higher for children in Indonesia).

Exhibit 1. Percentage of parents and children who enjoy, and do not enjoy, reading, and who read, and do not read, frequently: PIRLS 2011.



Source: International Association for the Evaluation of Educational Achievement (IEA), the Progress in International Reading Literacy Study (PIRLS) 2011

Note: Education systems are ordered in the first panel by the percentage of children who enjoy reading. Reading enjoyment is defined as those respondents who *agreed a lot* with the statement "I enjoy reading." Respondents who do not enjoy reading are those who *disagreed a little* or *disagreed a lot* with the statement. The second panel of the exhibit is ordered by the percentage of children who read frequently. Reading frequently is defined as those parents / children who answered *every day or almost every day* when asked how often they read for enjoyment at home / read for fun outside of school. Parents / children who do not read frequently are those who answered *never or almost never* when asked the same questions. Education systems highlighted in blue are those with an average reading literacy score of at least 550 (see Mullis et al. 2012b, p.65 for additional details), which is the cut point for the PIRLS 2011 High International Reading Benchmark. UAE stands for United Arab Emirates. SAR stands for Special Administrative Region of the People's Republic of China.

Finally, what is perhaps most interesting is that the large majority of education systems that are high performing on PIRLS 2011 are among those systems where more parents than children have positive reading attitudes and behaviors. In at least seven of the 10 high-performing education systems, higher percentages of parents than children enjoy reading and read frequently. This result may, in part, be driven by the relatively low percentages of children with positive attitudes and behaviors in these education systems (particularly with regard to reading enjoyment), which some research speculates may be due to cultural differences and perhaps because children in these systems experience more challenging learning environments (Mullis, Martin, Foy, & Arora, 2012a).

Do children share their parents' positive reading attitudes and behaviors?

The prior analysis provided a descriptive picture of reading enjoyment and frequency across education systems. However, because it looks at parents and children overall, it does not provide insight into the extent to which reading attitudes and behaviors are shared because we do not know if the student respondents corresponded directly with the parent respondents (for example, some children with positive attitudes and behaviors could have parents with negative attitudes and behaviors).

Instead, to examine the extent to which reading attitudes and behaviors are shared, we examined whether the percentages of children reporting positive attitudes and behaviors differ based on the reported attitudes and behaviors of their parents; is it more common for children to report positive reading attitudes and behaviors if their parents also do so? Exhibit 2 shows the percentage of children from different groups of parents (namely, those with positive and those with negative reading attitudes and behaviors) for both reading enjoyment and reading frequency. Bigger differences between groups of children indicate a greater tendency for children to have positive reading attitudes and behaviors when their parents are positive than when their parents are negative.

Looking first at reading enjoyment, in the large majority of education systems, it is more common for children to have a positive attitude when their parents also have this attitude. On average internationally, about two-thirds of children enjoy reading when their parents also enjoy reading, but only half of them enjoy reading when their parents do not, a difference of about 14 percentage points. In eight education systems, such differences are 20 percentage points or higher.

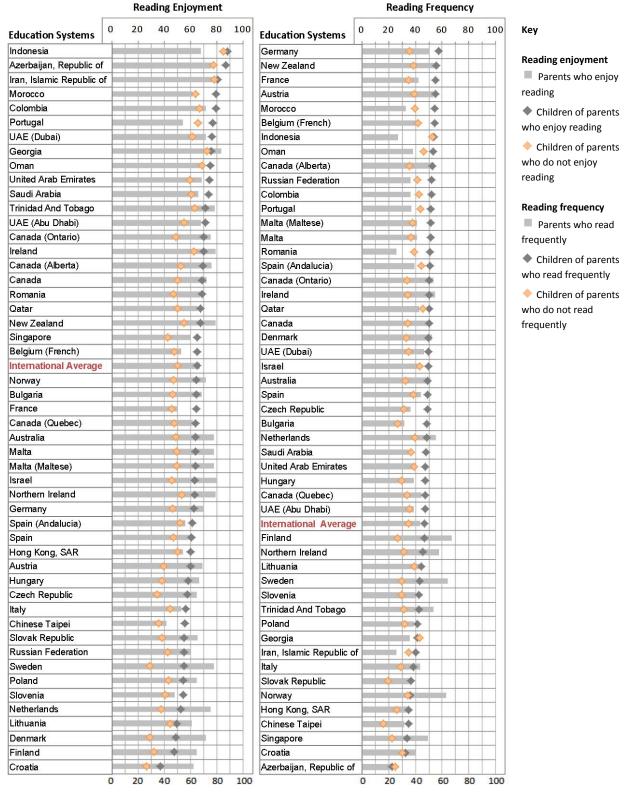
The pattern is similar for reading frequency, where, in most education systems, it is more common for children to read frequently when their parents also read frequently. On average internationally, about half of children read frequently when their parents also read frequently, but only about one-third of them read frequently when their parents do not. In Bulgaria, France, Finland, and Germany, the percentage of children who read frequently is at least 20 percentage points higher for those whose parents read frequently than for those whose parents do not.

Interestingly, this analysis shows that parents and their children's positive reading attitudes and behaviors are not always shared; namely, there are still substantial percentages of children with "negative" parents who nevertheless hold "positive" attitudes toward reading. However, the results show that it is more common for children to have positive reading attitudes and behaviors when their parents also have positive reading attitudes and behaviors than when they do not.

Do some children share their parents' positive reading attitudes and behaviors more than others?

The previous analysis looked at children with positive reading attitudes and behaviors from two groups of parents, namely those with positive and those with negative attitudes and behaviors toward reading. The next set of analyses focus only on those children who have parents with positive attitudes and behaviors, but examine different groups of children. We aim to answer the question: does sharing their parents' positive reading attitudes and behaviors differ depending on children's sex or parents' level of education?

Exhibit 2. Percentage of children who enjoy reading and read frequently, by their parents' reading enjoyment and reading frequency: PIRLS 2011.



Source: International Association for the Evaluation of Educational Achievement (IEA), the Progress in International Reading Literacy Study (PIRLS) 2011.

Note: Education systems are ordered in the first panel by the percentage of children who enjoy reading whose parents enjoy reading. Reading enjoyment is defined as those respondents who *agreed a lot* with the statement "I enjoy reading." Respondents who do not enjoy reading are those who *disagreed a little* or *disagreed a lot* with the statement. The second panel of the exhibit is ordered by the percentage of children who read frequently whose parents read frequently. Reading frequently is defined as those parents/children who answered *every day or almost every day* when asked how often they read for enjoyment at home / read for fun outside of school. Respondents who do not read frequently are those who answered *never or almost never* when asked the same questions. UAE stands for United Arab Emirates. SAR stands for Special Administrative Region of the People's Republic of China.

Boys and girls

Exhibit 3 shows, among those children whose parents report positive reading attitudes and behaviors, the percentage of boys versus the percentage of girls who report they enjoy reading (first panel) and read frequently (second panel).

In terms of reading enjoyment, in all 50 education systems, a higher percentage of girls than boys enjoy reading when their parents also enjoy reading (Exhibit 3). The differences favoring girls over boys range from six percentage points in Dubai (UAE) to 24 percentage points in Finland.

In terms of reading frequency, there is a similar pattern favoring girls, though in fewer education systems. In about three-quarters of the education systems, a higher percentage of girls than boys read frequently when their parents also read frequently. The differences favoring girls over boys range from six percentage points in the United Arab Emirates to 19 percentage points in Bulgaria. In the remaining education systems, there is no measurable difference between the reading frequency of girls and boys.

Parents' education

Exhibit 4 shows, among children whose parents report positive reading attitudes and behaviors, the reported reading enjoyment (first panel) and reading frequency (second panel) of children by the highest level of education attained by their parents (university degree or higher versus no university degree).⁵

Compared to children's sex, parents' level of education is not as frequently a factor in children's reading enjoyment and frequency among children whose parents have positive reading attitudes and behaviors (Exhibit 4). In terms of reading enjoyment, in about half the education systems, the pattern is as might be expected, with higher percentages of children who enjoy reading when their parents have a university degree compared to when they do not. However, in Bulgaria, Colombia, Georgia, Israel, and Romania, it is the children whose parents do not have a university degree who more frequently report enjoying reading than those whose parents do have a degree. The relationship is weaker as well, with differences favoring children of more highly educated parents, for example, ranging from three percentage points in the UAE to 16 percentage points in Germany. (Recall that the range was six to 24 percentage points between boys and girls.)

In terms of reading frequency, the expected pattern (i.e., higher percentages among children of highly educated parents) is seen in slightly more than half the education systems; the reverse is true in Colombia and Georgia. Colombia and Georgia are examples of outliers for *both* reading enjoyment and frequency, with Colombia showing the largest differences on both measures (i.e., 10 and 18 percentage points higher in reading enjoyment and reading frequency, respectively, for children from parents without a university degree compared to those from parents with a degree).



Endnotes

- 1 Three additional education systems participated in PIRLS 2011 but did not administer the parent questionnaire and are thus not included in the analyses: England, the United States, and Florida (USA).
- 2 The one exception was Croatia, where there was no measurable difference between the percentage of children who enjoyed reading and those who did not.
- 3 In this brief, we only describe differences that are statistically significant at the 0.05 level. Supplemental tables providing all estimates and associated standard errors for the results in this brief are provided in the Appendix. http://www.iea.nl/fileadmin/user_upload/Policy_Briefs/IEA_PB_Dec2015_Appendix.pdf
- 4 The one exception was Azerbaijan, where the percentage of children who read frequently was 31 percentage points less than the percentage of those who do not read frequently.
- 5 In this brief, a university degree or higher is equivalent to the International Standard Classification of Education (ISCED) level 5A or higher.

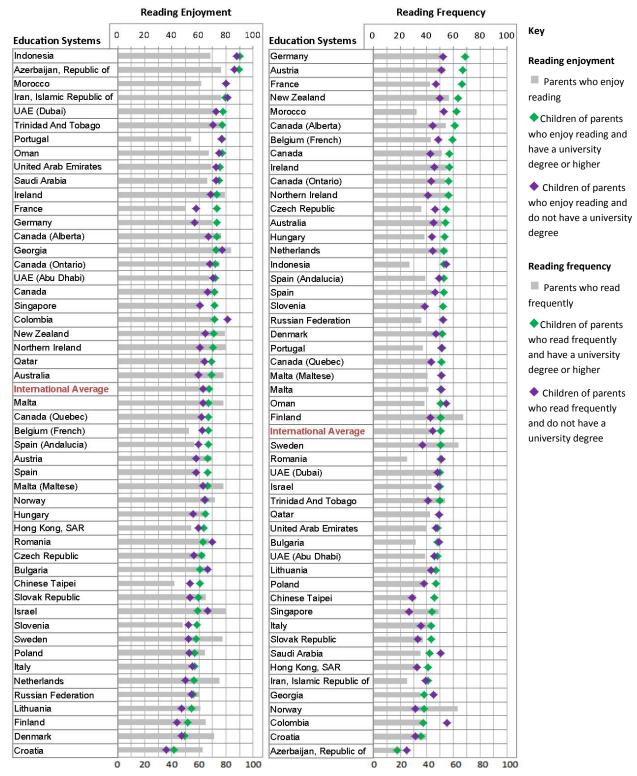
Exhibit 3. Among children whose parents enjoy reading or read frequently, the percentage of children who enjoy reading or read frequently, by child's sex: PIRLS 2011.



Source: International Association for the Evaluation of Educational Achievement (IEA), the Progress in International Reading Literacy Study (PIRLS) 2011.

Note: Education systems are ordered in the first panel by the percentage of girls who enjoy reading whose parents enjoy reading. Reading enjoyment is defined as those respondents who *agreed a lot* with the statement "I enjoy reading." The second panel of the exhibit is ordered by the percentage of girls who read frequently whose parents read frequently. Reading frequently is defined as those parents/children who answered *every day or almost every day* when asked how often they read for enjoyment at home / read for fun outside of school. UAE stands for United Arab Emirates. SAR stands for Special Administrative Region of the People's Republic of China.

Exhibit 4. Among children whose parents enjoy reading or read frequently, the percentage of children who enjoy reading or read frequently, by parents' education level: PIRLS 2011.



Source: International Association for the Evaluation of Educational Achievement (IEA), the Progress in International Reading Literacy Study (PIRLS) 2011.

Note: Education systems are ordered in the first panel by the percentage of children who enjoy reading whose parents enjoy reading and have a university degree or higher. Reading enjoyment is defined as those respondents who agreed a lot with the statement "I enjoy reading." The second panel of the exhibit is ordered by the percentage of children who read frequently whose parents read frequently and do not have a university degree. Reading frequently is defined as those parents/children who answered every day or almost every day when asked how often they read for enjoyment at home / read for fun outside of school. Having a "university degree or higher" is equivalent to completion of the International Standard Classification of Education (ISCED) level 5A and higher. Details on ISCED levels are available at http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf. UAE stands for United Arab Emirates. SAR stands for Special Administrative Region of the People's Republic of China.

CONCLUSIONS

Our initial question was: were parents' positive reading attitudes and behaviors contagious? The answer is "quite possibly," although we can't say for certain because of some inherent limitations with the data as explained below in the context of our key conclusions:

1. Children tend to share their parents' positive reading attitudes and behaviors.

In most of the 50 education systems studied, it is more common for children to enjoy reading and read frequently for fun when their parents also do so. In some education systems, for example, the percentages of children who enjoy reading or read frequently more than 20 percentage points higher for those whose parents also enjoy reading or read frequently than for those whose parents do not. This supports the idea that parents' positive reading attitudes and behaviors may be a factor in their children's attitudes and behaviors—that such attitudes and behaviors may be "contagious." However, because PIRLS is a correlational study, not an experimental study, we can notice and highlight such relationships but can't attribute causality. It is also possible that the parent-child relationship has a bidirectional aspect, with the child's interest and engagement in reading encouraging the parent to also enjoy reading. With these caveats in mind, policies and programs might further explore parents' reading attitudes and behaviors as possible levers for fostering young children's interest and engagement in reading.

2. Although it is more common for children to have positive reading attitudes and behaviors when their parents share such attitudes and behaviors, some children of parents with negative reading attitudes and behaviors also report enjoying reading and reading frequently.

Thus, other factors should be considered in trying to understand the formation of children's reading attitudes and behaviors. Some children may have a natural proclivity to read, or may share other attributes such as educational aspirations or geographic contexts; and there is also the contribution of schooling and peers in fostering positive reading attitudes and behaviors. Again, we highlight the possibility of bidirectional relationships.

3. It is more common for girls than boys to enjoy reading and read frequently, among those children whose parents have positive attitudes and behaviors.

This is true in at least three-quarters of the education systems studied. The difference favoring girls was 16 percentage points on average for reading enjoyment and 10 percentage points on average for reading frequency. Though the nature of the PIRLS parent questionnaire (i.e., completed by one or both parents jointly) precluded such analysis, it would be interesting to further explore whether these differences are related to the parent's sex, as some past research has suggested. At a minimum, policymakers might consider whether boys would benefit from further encouragement and targeted interventions to promote their interest and engagement in reading beyond the benefit that may come from having a parent with positive reading attitudes and behaviors.

4. Compared to the differences in reading enjoyment and frequency between boys and girls, differences based on parents' level of education are not as common or consistent across education systems.

In only about half the education systems is the expected pattern, namely higher percentages of children who enjoy reading or read frequently when their parents have a university degree compared to when their parents do not have one, even when both groups have parents who enjoy reading or read frequently. In these systems, policymakers might consider targeting student interventions based on this background characteristic, even when the parents have positive reading attitudes and behaviors.

5. It is more common for both parents and children to enjoy reading than to read frequently.

On average internationally, a higher percentage of both parents and children report that they enjoy reading (68 and 61 percent, respectively) than read frequently (43 and 42 percent, respectively). While it is possible that different responses would be obtained by a second parent completing the questionnaire (as could any of the findings), the differences are large enough to suggest that additional work is needed to study causes and determine strategies that can translate positive feelings about reading into positive reading actions.

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The International Association for the Evaluation of Educational Achievement, known as IEA, is an independent, international consortium of national research institutions and governmental agencies, with headquarters in Amsterdam. Its primary purpose is to conduct large-scale comparative studies of educational achievement with the the aim of gaining more in-depth understanding of the effects of policies and practices within and across systems of education.

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