



Russian Academy of  
Education

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*Centre for Evaluating the Quality of Education*



International Association for  
the Evaluation of  
Educational Achievement

## *PIRLS-2011 Results in Reading*

**The Russian 4<sup>th</sup> grade students confirmed their status of leaders in reading and reading comprehension.**

**The results of the international comparative study PIRLS, conducted in 2011, showed that Hong Kong, the Russian Federation, Finland and Singapore are top-performing countries. Comparison of these countries students' achievement results did not reveal any significant differences between them. The results of the students from other countries are much below.**

The international project PIRLS – Progress in International Reading Literacy Study is a monitoring study of primary education quality. The goal of the project is to compare reading literacy quality of the primary school students in different countries and identify differences in national education systems to improve teaching of reading and reading comprehension. The study is conducted by the International Association for the Evaluation of Educational Achievement (IEA).

325 000 students from 49 countries took part in PIRLS-2011 (39 countries including Russia participated in PIRLS in 2001 and/or 2006). Russia was represented in this study by 4461 primary school students from 202 comprehensive schools of 42 regions.

In Russia the study was carried out by the Centre for Evaluating the Quality of Education of the Russian Academy of Education with active participation of the Ministry of Education and Science, Federal Service for Supervision in the Sphere of Education and Science, and local education authorities. The study was conducted within the framework of the Federal target program for the development of education.

The findings of the study provide answers to the following questions:

1. How well do the Russian primary school students read in comparison with students from other countries?
2. What changes in reading achievement results of the Russian primary school students have occurred over the last years?
3. How do family and school contribute to reading literacy development?
4. What factors influence the highest reading achievement results of the Russian 4<sup>th</sup> grade school students?

## Key findings

Reading achievement of 4<sup>th</sup> grade students<sup>1</sup>

Country	Average scale score
Hong Kong SAR	571 (2,3) =
<b>Russian Federation</b>	<b>568 (2,7) =</b>
Finland	568 (1,9) =
Singapore	567 (3,3) =
Northern Ireland	558 (2,4) ▼
United States	556 (1,5) ▼
Denmark	554 (1,7) ▼
Croatia	553 (1,9) ▼
Chinese Taipei	553 (1,9) ▼
Ireland	552 (2,3) ▼
England	552 (2,6) ▼
Canada	548 (1,6) ▼
Netherlands	546 (1,9) ▼
Czech Republic	545 (2,2) ▼
Sweden	542 (2,1) ▼
Italy	541 (2,2) ▼
Germany	541 (2,2) ▼
Israel	541 (2,7) ▼
Portugal	541 (2,6) ▼
Hungary	539 (2,9) ▼
Slovak Republic	535 (2,8) ▼
Bulgaria	532 (4,1) ▼
New Zealand	531 (1,9) ▼
Slovenia	530 (2,0) ▼
Austria	529 (2,0) ▼
Lithuania	528 (2,0) ▼
Australia	527 (2,2) ▼
Poland	526 (2,1) ▼
France	520 (2,6) ▼
Spain	513 (2,3) ▼
Norway	507 (1,9) ▼
Belgium (French)	506 (2,9) ▼
Romania	502 (4,3) ▼
<b>PIRLS Scale Centerpoint</b>	<b>500</b>
Georgia	488 (3,1) ▼
Malta	477 (1,4) ▼
Trinidad and Tobago	471 (3,8) ▼
Azerbaijan	462 (3,3) ▼
Iran, Islamic Rep. of	457 (2,8) ▼
Columbia	448 (4,1) ▼
United Arab Emirates	439 (2,2) ▼
Saudi Arabia	430 (4,4) ▼
Indonesia	428 (4,2) ▼
Qatar	425 (3,5) ▼
Oman	391 (2,8) ▼
Morocco	310 (3,9) ▼

= No statistically significant difference between an average score of a country and the average score of Russia

▼ An average country score is statistically significantly lower than the average score of Russia

### *The Russian 4<sup>th</sup> grade students are top-performers again!*

According to 2011-year data the 4th grade students of Hong Kong, Russia, Finland, and Singapore are top-performers in reading literacy; the 4th grade students from these countries demonstrated the best reading achievement results. Differences in average scores of these countries are not significant.

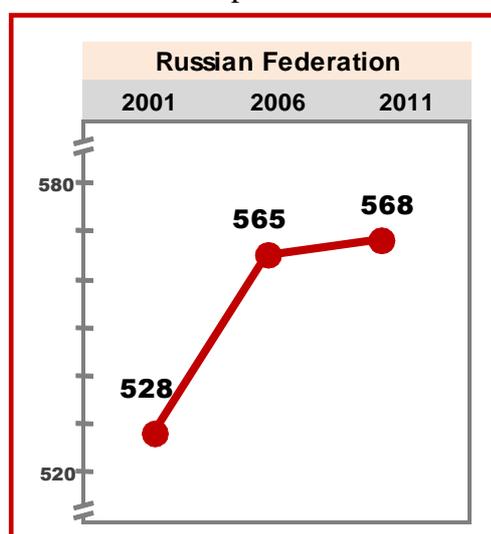
The results of other countries' participants are much lower than the results of four top-performing countries.

It is important to emphasize the steady positive dynamics of the Russian students' achievement.

In 2001 Russia was in the 12th position among 35 countries participated. The average reading literacy score was 528.

In 2006 the Russian students results were significantly increased: the first position in the rating of 44 countries. The average reading score was 564.

In 2011 the Russian student's achievement in reading was again high- and the students proved their leadership.



<sup>1</sup> The results are reported on the PIRLS scale, which has a range 0 – 1,000. PIRLS uses the centerpoint of the scale (500) as the reference point. Standard errors appear in parentheses.

***The Russian schoolchildren are good both at literary texts as well as informational texts.***

The Russian students as well as students from high-performing countries showed high achievement both in reading literary texts (567) as well as informational text (570). So they demonstrated the balance of reading skills which are necessary for literacy experience and to acquire and use information.

PIRLS test consists of two texts (literary and informational) and 12-16 items for each text.

Testing time – 80 minutes with a break.

The test assesses two groups of reading skills:

- 1) retrieving explicitly stated information from the text and making straightforward inferences;
- 2) interpreting and integrating ideas and information and examining and evaluating content, language, and textual elements.

***The Russian 4<sup>th</sup> grade students became better at integrating information from the text, and understanding the main idea. They became more confident in expressing their own opinion.***

In 2011 the Russian schoolchildren demonstrated **higher results** in the second group of skills (interpreting, integrating and evaluating information, 571) than in the first group (retrieving information from the text and making straightforward inferences, 565). Compared with 2001, in 2011 the results for the items of the first group increased by 32 points and for the second group – by 47 points.

***In most countries the reading gender gap has decreased. In Russia the gap between boys and girls has increased in favor of girls.***

In Russia girls outperformed boys by 18 points (578 and 559 respectively).

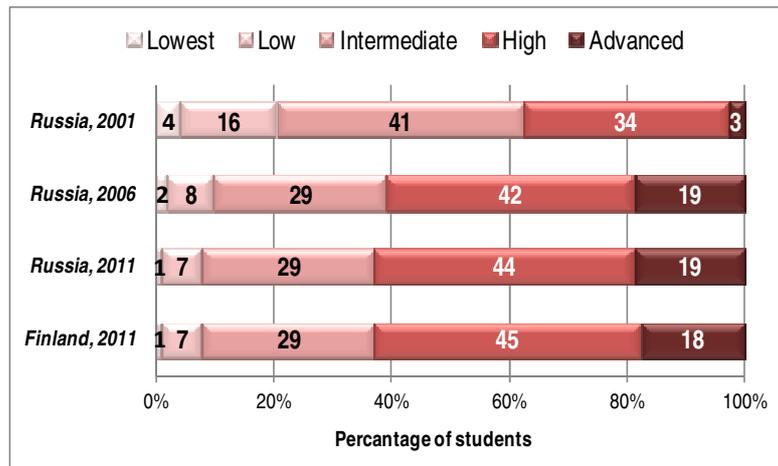
The analysis of the international study results does not prove the hypothesis that girls are better in reading stories and boys are better in reading articles. The data demonstrates that almost in all countries girls are better in reading both stories and articles.

On the international average the gap in reading achievement between girls and boys has been decreased compared with 2001 and 2006. The girls had a 16-points advantage, on average, compared to boys (girl's international average score – 520, boy's international average score – 504). In Russia this gap has increased.

**Expert's comments:** *The study results indicated that special efforts should be done to develop boys' interest in reading, in learning boys different reading strategies, etc.*



## Benchmarks of reading achievement (percentage %)



The Russian 4<sup>th</sup> grade students reached the following benchmarks of reading literacy:

- Advanced (625 and higher) – 19%;
- High – 44%;
- Intermediate – 29%;
- Low – 7%.

Only 1% of the Russian students demonstrated the lowest results.

### International benchmarks of reading achievement PIRLS-2011

#### Advanced (625 and higher)

Students take the entire text integrate ideas across a texts to provide support to their reasons and explanations, the students perceive the whole text, comprehend separate units of the text and their connections between them. Students can justify their own interpretations of an author's opinion based on the text.

#### High (550)

Students can make inferences and interpretations with text-based support: the students can comprehend key messages of the text, make their own text-based conclusions, evaluate the context and the style of the text and pay attention to linguistic peculiarities.

#### Intermediate (475)

Students can locate information in the text and make straightforward interferences: the students make conclusions on the basis of this information, using some special stylistic and linguistic characteristics of the text.

#### Low (400)

Students can locate and retrieve information from different parts of the text: the students can read information if it is explicitly stated and easy to locate.

63% of the Russian fourth grade students reached advanced and high benchmarks of reading achievement handle with the items of high and higher levels of complexity which require not only reading of the text but also analysis of the retrieved information from the text, but seriously, thinking about this information. These students successfully read, comprehend, and interpret the texts of 800–1000 words.

The number of the students reaching each of the identified international benchmarks increased in comparison to 2001 and 2006 studies. The number of the students demonstrating the lowest results declined to 1%.

**Expert's comments:** *Analysis of the PIRLS results revealed some difficulties faced by the Russian students in completing of some items. Thus, some of the Russian students did not have the habit of approaching the text several times to clarify information. This leads to two typical problems: firstly, the students poorly differentiate the text-based information and the information they acquire from their personal experience. Secondly, the students have limited and inaccurate understanding of the text.*

*The Russian students experience difficulties if they need to provide a detailed written response answer. This relates to the whole process of reflecting ideas in writing. Children's experience in writing ideas (even if an idea is expressed orally) is quite limited.*

*Professionals should be concerned with writing communication issues about the problems of written communication if a 9-10 year old child comprehends the text, but has difficulties in expressing his own ideas in a written form.*

The PIRLS results demonstrate that the Russian primary school graduates have relatively high levels of readiness to use texts for learning in secondary school, expanding their personal experience and knowledge.

## The role of family and school in developing reading literacy

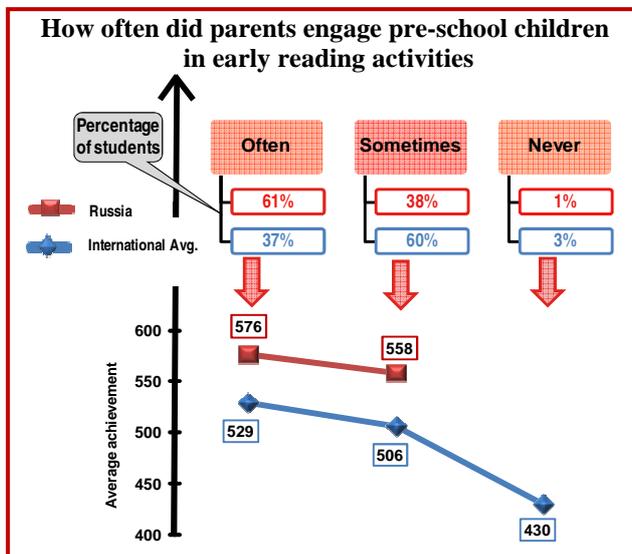
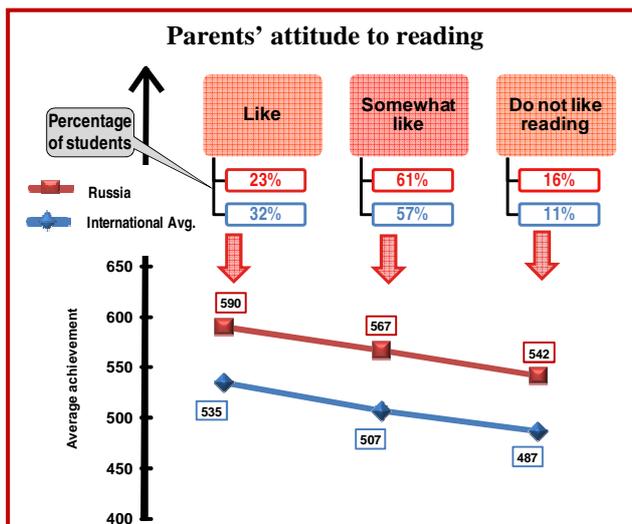
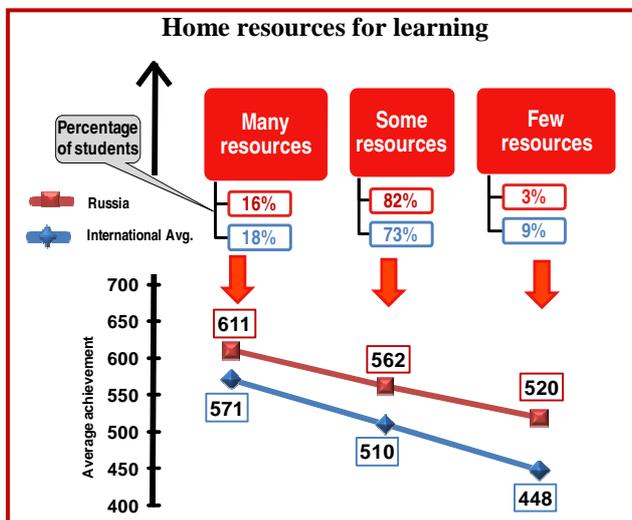
### Children from which families are better at reading

PIRLS-2011 results demonstrated that those children are better at reading, whose parents like reading, engage in early literacy activities with their pre-school children, and have high level of education, and their children have attended kindergarten or other pre-school institutions. These families have enough books (more than 100) and have a computer with the Internet access.

Only 16% of the Russian students, participated in the study, belong to a well-resourced group: the group that provides many resources for learning. This group is defined by 5 indicators: 1) parents' education, 2) parents' occupation, 3) the total number of books at home, 4) the number of children's books, 5) Internet access and availability of a personal room. The percentage of schoolchildren that belong to this group in Australia, Sweden, Denmark, New Zealand, Canada and Finland is twice as high as in Russia.

However, *the Russian families efficiently support their children in achieving high results in reading.*

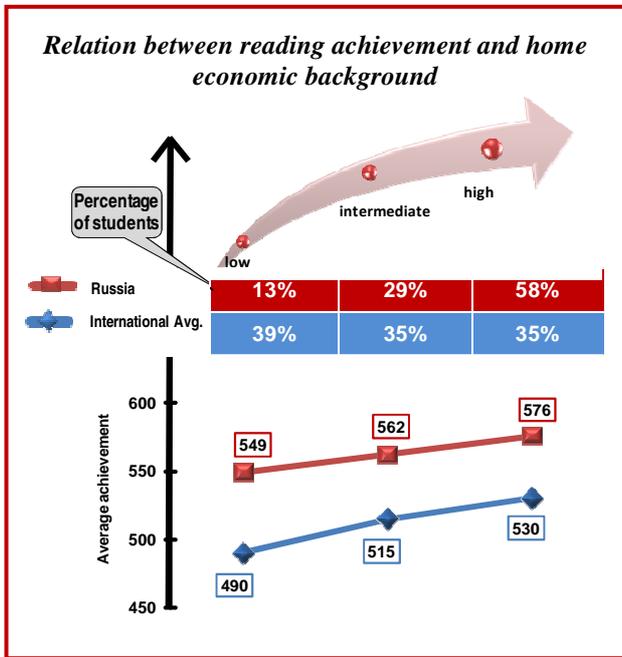
The Russian parents more often than parents from other countries engaged their pre-school children in early reading activities: they read books with children; told them stories; sang songs; played games with alphabet; played games with words etc. The research shows that this is one of the key factors that affect successful acquisition of reading skills.



## *The role of school in reading literacy development*

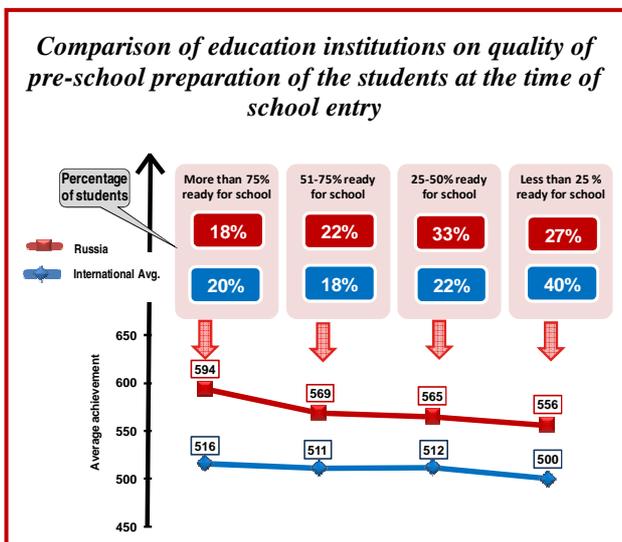
Most effective schools, which demonstrated high achievement results in PIRLS, are well-resourced with adequate working conditions for teachers and minimal school discipline problems.

The relation between reading achievements and home economic background was proved for Russia. The students from schools, where the majority of the students are from economically disadvantaged families, reached much lower reading achievements results than the students from schools, where the majority are from affluent home backgrounds (549 and 576 respectively). This data indicates that special conditions should be created for schoolchildren from economically disadvantaged families.

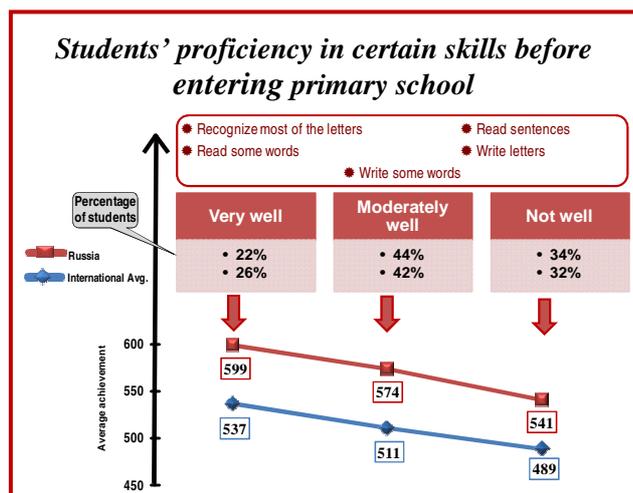


According to schools' principles only 18% of schoolchildren are taught at schools where most of the students when starting primary school were prepared for studying reading. More than quarter of students (27%) are taught at schools where the majority of the first grade students have low levels of preparation for studying, and reading literacy levels of these students after finishing primary schools are also lower. This data indicates that priority should be given to differentiation of teaching in every classroom. Special attention should be given to schools, where the majority of first-graders do not have the skills needed for a successful start of studying.

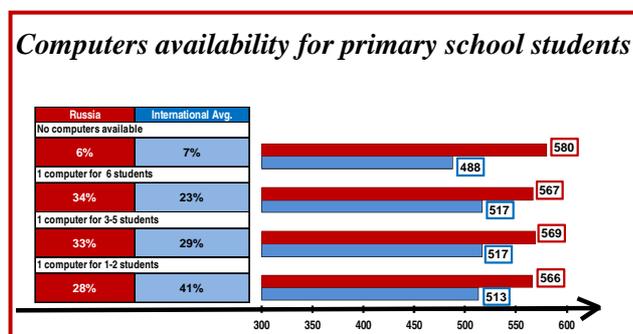
The research did not reveal any correlation between the number of academic hours per week for teaching reading and the country's reading achievement results. Thus, for example, there are 246 hours per year for teaching reading in the USA and 65 hours in Taiwan. However, the achievement results of these countries are similar. For comparison: there are 130 academic hours per year for teaching reading in Russia and its reading results are higher. This leads to conclusion that quality of teaching, teacher's qualification, teaching methods (effectiveness of teaching) are more important than the number of hours provided for teaching reading.



PIRLS-2011 proved that availability of a classroom library is a key factor in developing reading literacy. 77% of the Russian students participated in the study are taught in classes with libraries (an international average is 72%). These students have higher reading achievement results than students who are taught in classes where library is not available: 571 compared to 558.



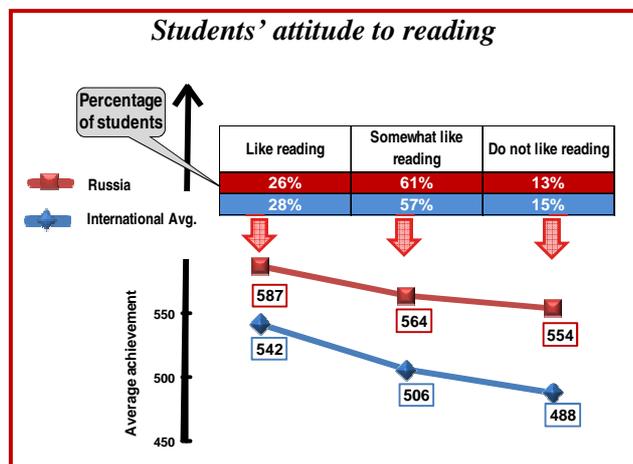
The study revealed that the reading literacy level of the students whose teacher uses a computer at reading lessons equals to the reading literacy level of the students whose teacher does not use a computer. This evidence proves that computers' availability and use of computers at lessons do not enhance teaching quality. The purpose of using computers and learners' engagement in self-study activities with using computers are much more important than computers' availability.



**Students with positive attitude to reading have higher achievement.**

Russia belongs to countries with the highest number of children motivated to reading (83%).

26% of the Russian students like reading and read every day for fun selecting books for reading. These students have the highest reading achievement results. 13% of the Russian students do not like reading and read rarely for fun. These students have relatively low results: the average score of this group is 554.



In conclusion we would like to emphasize that requirements to reading literacy are increasing in modern society. In this context Russia should not be satisfied with what has been already achieved. High achievement results of the Russian fourth grade students within international standards could be improved if lessons from PIRLS-2011 will be learnt.

*The results of PIRLS-2011 are presented on the websites:*

Centre for Evaluating the Quality of Education – <http://www.centeroko.ru>

International Study Centre – <http://timssandpirls.bc.edu/>

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***The list of Russian regions participated in PIRLS-2011***

- |                                       |   |
|---------------------------------------|---|
| 1. Republic of Bashkortostan          | 22. Kursk region                        |
| 2. Republic of Dagestan               | 23. Lipetsk region                      |
| 3. Republic of Sakha (Yakutia)        | 24. Moscow region                       |
| 4. Republic of North Ossetia – Alania | 25. Murmansk region                     |
| 5. Republic of Tatarstan              | 26. Nizhni Novgorod region              |
| 6. Chuvashi Republic                  | 27. Novosibirsk region                  |
| 7. Altai territory                    | 28. Orenburg region                     |
| 8. Krasnodar territory                | 29. Perm territory                      |
| 9. Krasnoyarsk territory              | 30. Rostov region                       |
| 10. Primorsky territory               | 31. Samara region                       |
| 11. Stavropol territory               | 32. Saratov region                      |
| 12. Arkhangelsk region                | 33. Sverdlovsk region                   |
| 13. Astrakhan region                  | 34. Tver region                         |
| 14. Belgorod region                   | 35. Tomsk region                        |
| 15. Volgograd region                  | 36. Ulyanovsk region                    |
| 16. Voronezh region                   | 37. Chelyabinsk region                  |
| 17. Ivanovo region                    | 38. Zabaikalsk territory                |
| 18. Irkutsk region                    | 39. The City of Moscow                  |
| 19. Kamchatka territory               | 40. The City of Sankt-Petersburg        |
| 20. Kemerovo region                   | 41. Khanty-Mansijsk autonomous district |
| 21. Kostroma region                   | 42. Yamalo-Nenets autonomous district   |