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# *In-depth analysis of factors contributing to high performance of Russian students during PIRLS-2006*




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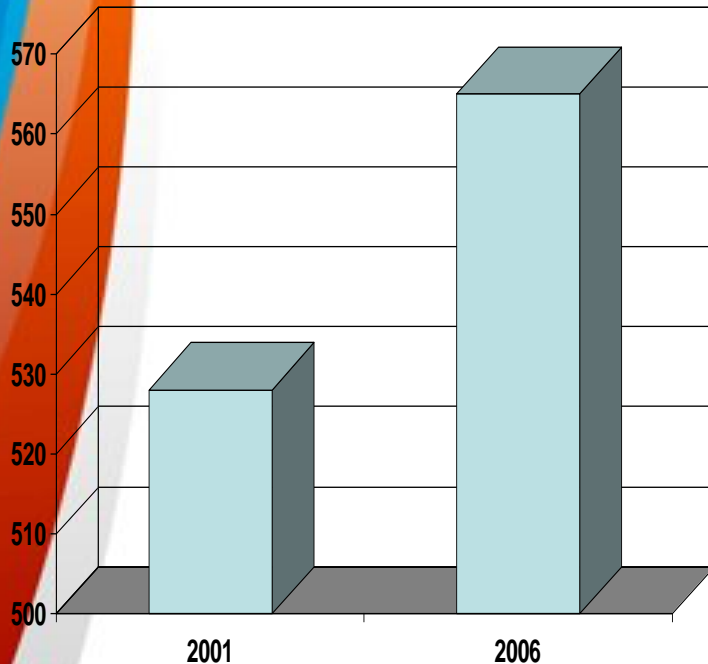
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- In 2006 Russia received the top rank among 40 countries participating in the reading literacy study of 4-graders (PIRLS)
  - Question: what in our education system can explain the high performance of 4-graders?
  - The response, once found, could help to predict and manage reading achievements of Russian students

The issue acquired special relevance since during another international study (PISA) Russia scored very low (compared to other countries) demonstrating a downward trend

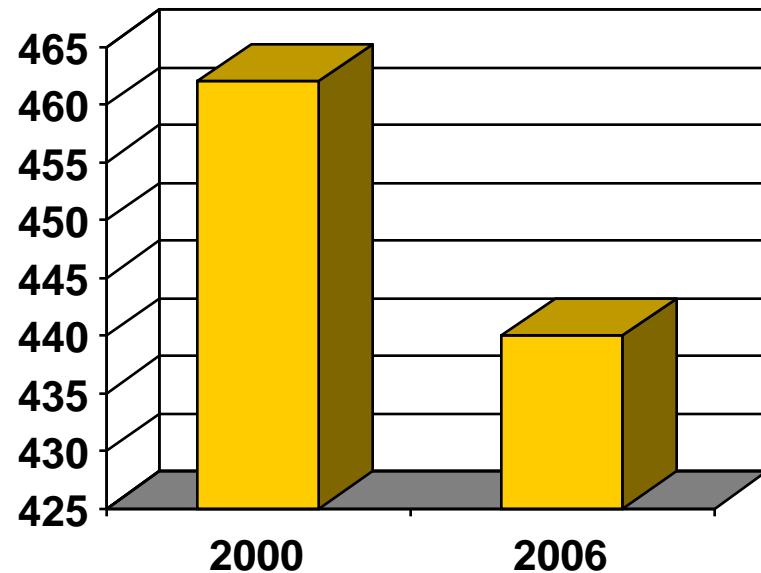
## Changes in average achievements, PIRLS and PISA (standardized average score)

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PIRLS



PISA (reading)



# Introduction

- PIRLS:
  - checks reading literacy;
  - a sample of 4-graders;
  - administered every 5 years.
- PISA:
  - comprises a module on reading literacy;
  - a sample of 15-year olds;
  - administered every 3 years.

Russia participates in both studies and can compare achievements in different years and for different cohorts

# What in education system helps to attain a high PIRLS performance?

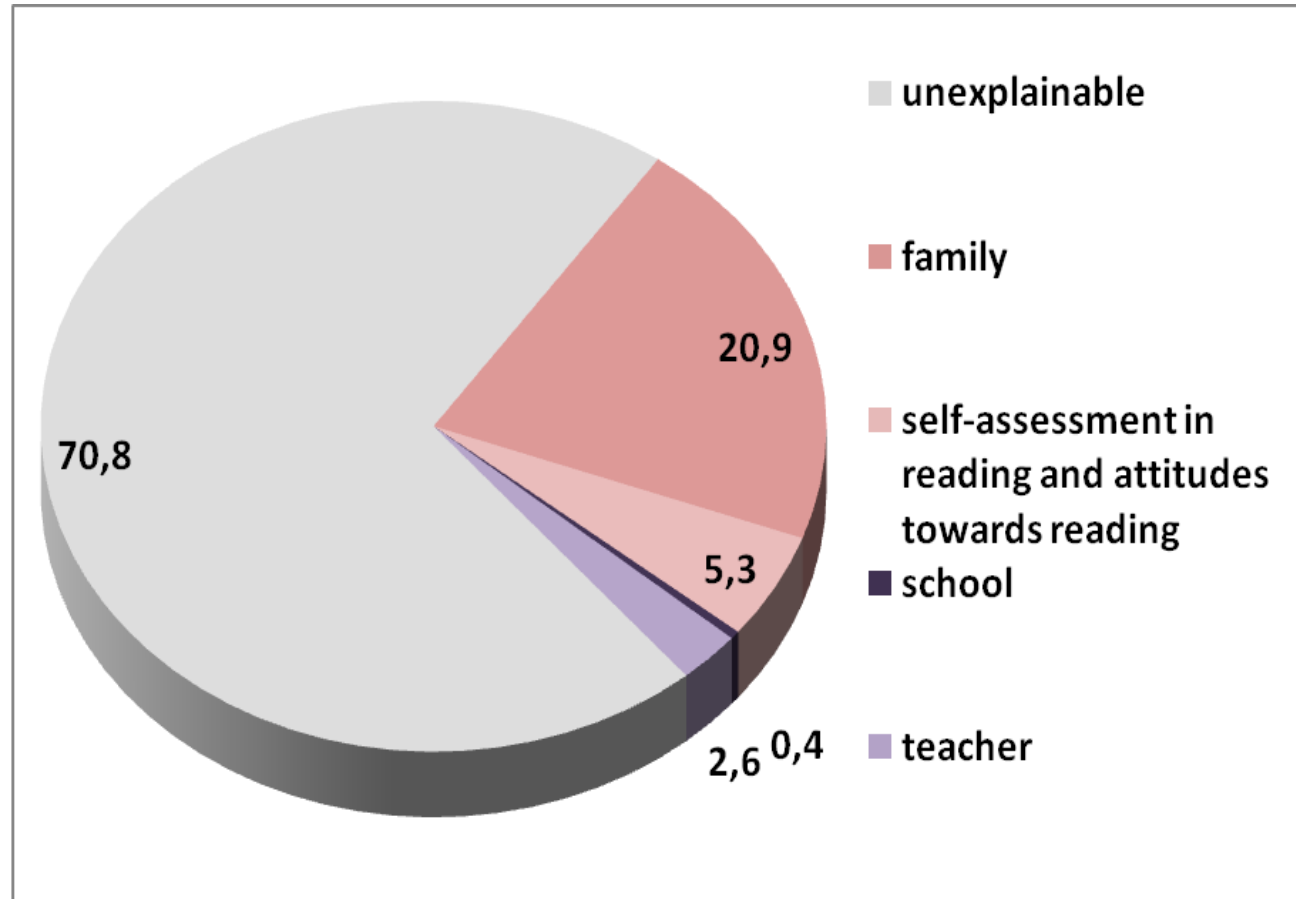
Basic questionnaire (a second PIRLS component) is the key source of information

Test assignments,  
PIRLS

Contextual  
questionnaires,  
PIRLS:

- student,
- teacher,
- school,
- family

# To what extent PIRLS questionnaires helped to explain test outcomes (based on statistics analysis)



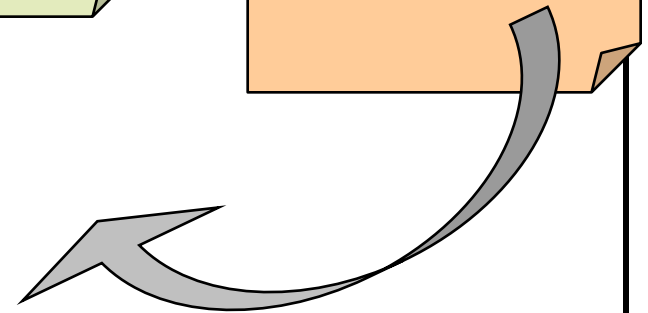
**A change of explanatory tool after in-depth data base analysis helped to address the issue of questionnaire poorly fitting the country context**

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PIRLS test assignments

PIRLS  
questionnaire

Russian  
questionnaire



## General model of secondary analysis approaches

- I. In-depth PIRLS data analysis (country sample)
- II. Additional research through secondary analysis

PIRLS test assignments	Russian questionnaire
	<b>+ <i>Observation</i></b>
	<b>+ <i>Interview</i></b>
	<b>+ <i>Textbooks analysis</i></b>



# Examples of pilot outcomes for each project area

## 1. In-depth analysis

Impact of school resources on achievements has been revealed only in the group comprising children from families with low socio-economic status

**Conclusion:** cash inflows are especially important in “underprivileged” areas as they help to somewhat offset negative impact caused by troubled and poor families

## 2. Observation: lesson organization

At underperforming schools about 10% of time was devoted to self-study, whereas at leading schools - approximately 22 minutes.

**Conclusion:** there is a link between engaging students in independent activities and their best performance

## Examples of pilot outcomes for each project area (ctd)

### 3. Questionnaires: Communicative activity of students

*When answering the question “What do I do during the lesson most often?”, the response “Silently listen to the teacher” was chosen by 23% of respondents in leading schools and by 50% of respondents – in underperforming schools.*

**Conclusion:** a frontal teaching approach in the classroom correlates with poor PIRLS performance.

### 4. Observation + Administering questionnaires: the level of teacher’s teaching skills – high level of teaching skills correlates with high performance.

# New Methodology Prospects

An in-depth analysis of data and additional school survey – a powerful means to explain outcomes of international education quality studies :

- country-specific, i.e. better fitting socio-cultural context and better explaining learning outcomes of a specific country;
- operating with scarce data on learning achievements;
- applicable in a variety of socio-cultural environments (i.e. can be replicated in different countries)

**Thank you!**