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**READING LITERACY OF RUSSIAN PRIMARY  
SCHOOLCHILDREN: ACHIEVEMENTS AND PROBLEMS**

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*Abstract*

It is extremely important to search for the answer to the question of how to organize the educational process so that the work on reading literacy would still be effective in the ever changing social and pedagogical conditions. But it is almost impossible to do it without the feedback given by regularly conducted studies. Russia participates in the PIRLS study and Russian primary school graduates are the leaders. Besides that, it is highly important to conduct national studies that consider the specific character of the Russian approach to the development of reading literacy as a meta-subject result and allow more possibilities to detect the existing problems. The article presents the results of the primary school graduates reading literacy study in one of the regions of the Russian Federation. The study emphasizes the assessment of the ability to use the information retrieved from the text in order to solve educational and practical tasks. The results showed that in general primary school graduates successfully handle with information presented in different forms and are able to consider generalized facts or facts combined by students themselves when answering the questions. The main difficulties that students face are related to inaccurate perception of information contained in the text and incorrectness of conclusions drawn and inability to alter the existing knowledge on the ground of facts obtained after reading the text. The data obtained in the study serve as the ground for making decisions on the necessary changes in the literacy improvement methods.

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## 1. Introduction

The formation of primary schoolchild's reading literacy is seen as one of the main goals of primary school both by the international and Russian teaching community (Britt, Goldman & Rouet, 2012; Stahl, 2011; Kintsch, 2012; Kintsch, 2013; Primernaja osnovnaja obrazovatel'naja programma nachal'nogo obshhego obrazovanija, 2015). In the current Federal State Educational Standard of Primary General Education reading literacy is seen as both subject and meta-subject result. This emphasizes that the work on reading literacy must be done not only during the Literacy Reading classes, other classes must contribute to its development. The work on the notion of reading literacy is being continued. Alongside with the generally recognized definition of this notion set in the PIRLS conceptual documents – PIRLS is the most reputable International comparative study of primary schoolchildren reading literacy and it gave birth to the notion at issue (Martin, Mullis & Hooper, 2017; Martin & Mullis, 2015) – the Russian interpretations of the notion are also presented. From our point of view, the definition given by Natalia Vinogradova merits consideration: “Reading literacy is a component of functional literacy that includes: aggregate of skills and habits that reflect the ability of schoolchild to conduct comprehension reading – to percept written text, analyze, assess and summarize the facts it includes; the ability to extract the necessary information in order to transform it in accordance with the school task; to orient oneself in life situations using various text information; the need for reading activity with the purpose of successful socialization, further education and personal growth” (Vinogradova, 2017; Universal'nye uchebnye dejstvija, 2016). This interpretation includes all the basic PIRLS guidelines and in addition we have enhanced the subcomponent of the notion related to motivation.

## 2. Problem Statement

The science and the practice are obviously searching for the answer to the question of how to organize the educational process so that the work on reading literacy would still be effective in the ever changing social and pedagogical conditions. But it is almost impossible to do it without the feedback given by regularly conducted reading literacy level studies. As we have already emphasized above, PIRLS is the most reputable International comparative study of primary schoolchildren reading literacy. This research is being conducted cyclically – once in five years. During the two cycles (in 2006 and 2011) the Russian primary school graduates were one of the leaders. One more cycle was realized in 2016 and the results announced in December 2017 showed that the Russian schoolchildren had confirmed their leadership (Rossijskie shkol'niki – luchshie chitateli v mire, 2017; What Makes a Good Reader, 2016).

## 3. Research Questions

But even given the high level of the Russian results in PIRLS there is a possibility to detect the problematic areas in our schoolchildren reading literacy during the detailed analysis of PIRLS results, which was done in relation to the three cycles (Zuckerman, Kovaleva & Baranova, 2018). Besides that, it is highly important to conduct national studies that consider the specific of the Russian approach to the development of reading literacy as a meta-subject result and allow more possibilities to detect the existing problems. The data obtained during these studies can come out as a reason for improvement of reading literacy formation strategy.

#### **4. Purpose of the Study**

In the study of primary school graduates' reading literacy in one of the regions of the Russian Federation, we have taken as a basis the concepts of the two most famous and most reliable international standardized assessments of educational attainment – PIRLS and PISA (Martin & Mullis, 2015; OECD, 2016; Harrison, 2017). But in this study, the assessment of the ability to apply information received from the text to solve educational and practical tasks was strengthened. This approach is inherent in a number of Russian concepts that assess reading literacy as a meta-subject result (Kovaleva, 2015; Kuznetsova, 2017; Rydze, 2017).

In accordance with this, it was decided to evaluate the level of reading of information texts, which included both verbal information and information in the form of figures, figures, diagrams. The aim of the study was to characterize the individual level of achievement of schoolchildren's 4 classes of reading skills and assess the dynamics of work on literacy in the schools of the region, since the study is conducted annually.

#### **5. Research Methods**

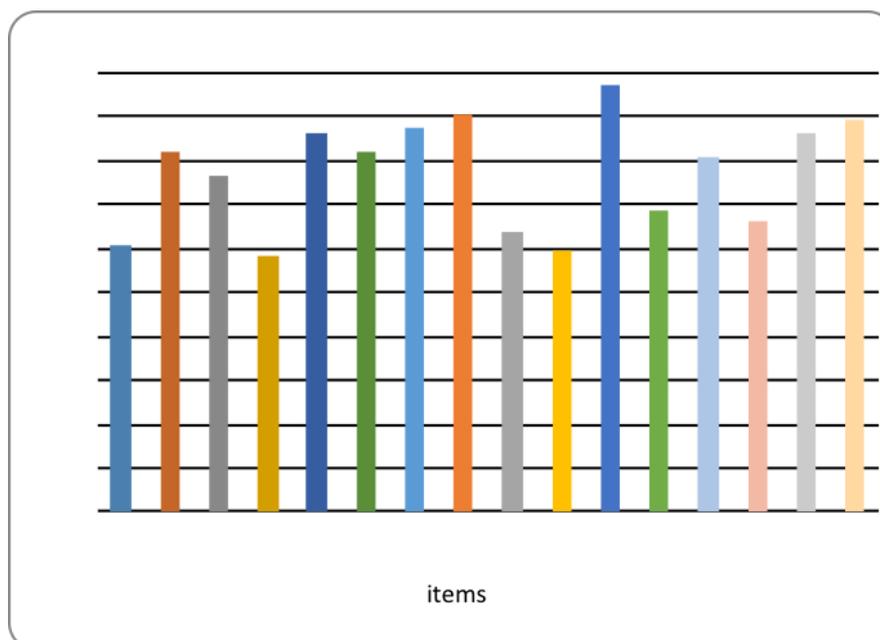
As the concrete objects of control three groups of readers' ability were distinguished:

- to read and understand texts that contain information exposed by different means (text, tables, brief notes), to reproduce or use information that is explicitly exposed (group 1);
- to summarize and interpret information, check and formulate statements and conclusions that are based on it, work with data exposed in different forms (group 2);
- to use information from the text in order to solve different practical and educational-cognitive tasks (group 3) (Kovaleva, 2015).

In the work plot, which was performed by the graduates of the primary school, the life situation corresponding to the age characteristics and level of the training of the primary school graduates is presented. The texts in both versions were invitations-guides: "Invitation to the Planetarium" and "Invitation to Veliky Novgorod". The students worked with one of the texts and performed 16 items. 68781 fourth-graders from 3015 classes of educational organizations took part in the study. The study was conducted by the Center for the Quality of Education (headed by V. F. Soldatov) of the Academy of Social Management of the Moscow Region.

#### **6. Findings**

During the data analysis, the average percentage of each item in both variants was calculated throughout the sample. The generalized data for both options is shown in Figure 1.



**Figure 01.** The results of each items of work by primary school graduates

The data allow to conclude that most of the items were performed at a good level: from 16 tasks for nine tasks the percentage of performance is from 81% to 97%. Among the problematic tasks can be assigned items No. 1, 4, 9, 10, it is also important to pay attention to items No. 12 and 14.

Item No. 1 assessed the ability of students to establish a correspondence between the text read and the purpose of this text; the ability to choose the most accurate and correct answer from the five proposed. Analysis of incorrect choices led to the conclusion that many students did not show the ability to determine the main purpose of the guidebooks, but chose answers that indicated the content of individual fragments of the guide.

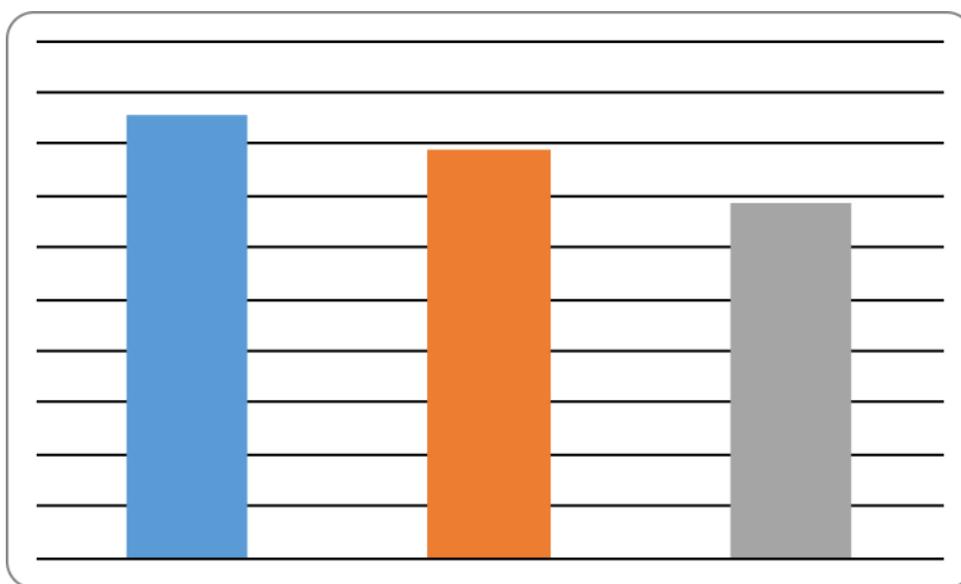
For example, only 56% of students who worked with the text "Invitation to Veliky Novgorod" (option 2) chose the correct answer "to tell about what can be seen in the city", while 18% of students chose the answer "tell how people lived in olden times in Veliky Novgorod", 8% of students chose the answer "to inform about how the Novgorod Kremlin was built".

Item No. 4 assessed the ability to use the information presented in the text to make a decision in a practical situation. To properly perform the item, it was necessary to pay attention to a certain feature of the proposed information and take it into account when making a decision. For example, in option 2, this item sounded like this: "What do you need to consider if you are going to visit the main building of the museum on Thursday?", The students were supposed to pay attention to the sentence: "Closed every Tuesday and last Thursday of every month" and write in the answer that "not every Thursday the museum is open", or "on the last Thursday of the month you do not need to go to the museum".

Item No. 9 was also aimed at assessing the ability to find information and apply it to solve the educational and cognitive tasks, while using the knowledge received during the years of education in the primary school. In option 2, it was such a task: "In what century did Prince Vladimir Yaroslavich founded the Novgorod Kremlin?" The student had to find in the text the sentence "Founded the Novgorod Kremlin in 1044 by Prince Vladimir Yaroslavich" and point to the 11th century.

Item No. 10 assessed the ability to compare objects on the basis of information presented in the text. For example, in option 1, this task sounded like this: "Write down the main difference between the viewing of the starry sky in the "Starry Sky" and "Observatory". 57% of students on the basis of reading and analyzing the text gave a correct expanded or shorter answer, indicating that the observatory is viewing the real sky, and in the "Starry Sky" hall its image.

In addition to analyzing the performance of each item, the percentage of assignments for the three selected groups of reading skills was calculated. The average percentage of tasks for each of the three groups was as follows: group 1 - 85.5%; group 2 - 79%; group 3 - 68.8%. The generalized data is shown in Figure 2. The most successful fourth graders coped with tasks to reproduce the information proposed in the text, to apply the data obtained from the text when answering a specific question.



**Figure 02.** Results of performing items that are evaluating different reader skills

Let's consider the fulfilment of items by groups in more detail.

Group 1. General understanding of the text, orientation in the text. In the work items for the search and identification of information in the text, as well as the formulation of direct conclusions, verification of facts on the basis of the text read (general understanding of what is said in the text, understanding the main idea) were presented. The most difficult item for this group was item No 3 of option 2 - it was correctly performed by only 62% of students. The complexity of this item is explained by the fact that students had to demonstrate the ability to clearly differentiate what they learned from the text, with what they knew well before reading the text. In the assignment they had to write down "where the main building of the Kremlin museum is located". 38% of students could not overcome the conflict of the knowledge received from the text that in the city of Veliky Novgorod there is the Novgorod Kremlin with a long-standing knowledge of them that there is the Moscow Kremlin.

Group 2. Readiness to analyze, interpret information (presented in the text verbally or in another form), present the results of analysis in the form of a conclusion or statement, answer to a question, a list of all possible solutions to work with data. The most difficult tasks in this group were items No. 1 and

No. 10, which have already been discussed above. The low level of performance of these tasks could be affected by the students' insufficient mastery of the logical comparison action, since without performing a comparison it was impossible to perform these tasks.

Group 3. Using information from the text for various purposes, the ability to link information received from the text with previously available knowledge. The most difficult tasks of this group were items No. 4 and No. 9, which have already been discussed above.

Items No. 12, 14 also proved to be quite complex. Item No. 12 assessed the ability of students to find in the text evidence of the truth of the proposed statement. For example, in version 1, this question was: "The text says that our country was the first in the exploration of outer space. Find in the text the proof of this statement." It was necessary to find in the text and write down the sentence "In 1957, by launching the first artificial Earth satellite, our country opened the space age".

Item No. 14 was aimed at assessing the ability to determine the meaning of a word, based on the text. The information needed to complete the task in the text was, but it was necessary to generalize it and use it to explain the meaning of the word. For example, in version 1, this task sounded like this: "Try using the text to write down the meaning of the word telescope. The telescope is ... "Based on reading the text, the students had the opportunity to record that the telescope is a device that helps to see what is at a very great distance from us / the device for observing what is far from us / the device that helps to study the sky.

Another focus of the analysis of results was the identification of different levels of mastering the reader's literacy as a result of the performance of all the work by the students. In the work were used tasks that were estimated at 1 and 2 points, depending on the completeness of the task. In total, student could get 25 points for work. Depending on the quality of the performance of the work, the level of mastering the reader's literacy was determined. Table 1 shows the summarized results.

**Table 01.** Levels of reading literacy as a meta-subject result of primary school graduates

Level	Criteria for the allocation of levels		The percentage of the 4th grade students who have performed work at this level
	score	% of the maximum score	
Insufficient	0 – 7 points	< 30%	1,7%
Basic	8 – 16 points	between 30% and 65%	36,3%
Advanced	17 – 21 points	between 65% and 85%	45%
High	22 – 25 points	> 85%	17%

1.7% of primary school graduates failed to perform the work at the basic level (the level of reading literacy of these students is characterized as insufficient). 36.3% of students completed the work at the basic level. 62% of students performed work at a level higher than the base one: 45% at an advanced level, 17% at a high level.

In the previous two academic years, the graduates of the primary school performed work compiled on the same basis (Kuznetsova, 2017). The similarity of approaches to constructing the work and interpreting the results allows us to compare the data. Since in the 2014-2015 school year only three

levels were allocated (there was no division into advanced and high levels), the comparison was performed in three levels (table 2).

**Table 02.** Comparison of the results of three school years

Level	The percentage of students who have performed work at this level in 2014-2015 school year	The percentage of students who have performed work at this level in 2015-2016 school year	The percentage of students who have performed work at this level in 2016-2017 school year
Insufficient	3%	3%	1,7%
Basic	43%	42%	36,3%
Above the basic	54%	55%	62%

Performance indicators allow us to speak about a stable situation with the primary schoolchildren's reading literacy, while positive dynamics have been revealed: in two years the number of students coping with work at a level higher than the base one has increased by 8%.

## 7. Conclusion

The results of the study showed that, in general, primary school graduates demonstrate a high level of reading literacy as a meta-subject result. Schoolchildren know how to work with text, highlight information in it, find data to formulate an output, verify the truth of an assertion. The fourth graders successfully handle with information presented in different forms and are able to consider generalized facts or facts combined by students themselves when answering the questions. Students successfully coped with tasks for applying the ability to work with information to resolve studied and unfamiliar learning situations.

The main difficulties that students face are related to inaccurate perception of information contained in the text and incorrectness of conclusions drawn and inability to alter the existing knowledge on the ground of facts obtained after reading the text. Difficulties are also manifested in situations when it is necessary to answer questions that require comparison, generalization, combine information from the read text and the available stock of knowledge. The data obtained in the study serve as the basis for making decisions on the necessary changes in the methodology for improving literacy.

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