

## Features and Advantages of Using Websites in Teaching Mathematics (Interactive Educational Platform UCHI.ru)

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### ABSTRACT

The number of electronic educational resources is multiplying day by day. Though such resources can be used in teaching children, teachers are not aware of their effectiveness thus far. So as to include websites in educational process purposefully and methodologically profoundly, it is important for the teacher to have cognizance of educational tasks that can be solved with the help of electronic resources, methodological functions they perform, and types of training activities they support and initiate. The paper is aimed to reveal the effectiveness of the interactive educational platform UCHI.ru while teaching math to primary school students. The leading methods applied in the research are as follows: testing, observation and analysis of educational process aimed to teach Mathematics to children aged between eight and nine through the use of UCHI.ru interactive educational platform to specify the dynamics of mathematical skills development in primary school students. The paper proves the validity of primary school students' mathematical training using UCHI.ru interactive educational platform; reveals features in teaching Mathematics to children aged 8-9 with the use of an educational website; identifies possible problem areas in teaching Mathematics using UCHI.ru interactive educational platform. UCHI.ru interactive educational platform, proposed in the paper, improves learners' motivation, facilitates their search competence formation and identifies gaps in basic knowledge of "Mathematics" as a subject for each student in class. UCHI.ru interactive educational platform can be employed by primary school teachers as supplementary didactic material.

**Keywords:** educational websites, interactive educational platforms, primary school students' training, teaching math to primary school students, mathematical skills

### INTRODUCTION

Introduction of technologies related to the global Internet network in the educational process is becoming increasingly important at present (Galushkin, 2015; Kalugina & Tarasevich, 2018; Rudenko et al., 2015; Petrovskaya et al., 2016; Vasbieva et al., 2018). These technologies are believed to enhance educational results; and such technologies as educational websites help master learning material without gaps. Learning motivation is growing noticeably (Lubnina et al., 2016). However, most primary school teachers in Russian schools have no idea about possible ways of using educational websites in teaching math. Teachers do not have enough information about the effectiveness of websites in educational process (Dmitrieva et al., 2015; Faleeva et al., 2017; Filatov et al., 2018; Firsova et al., 2018; Lubimova & Sabanaev, 2014; Oborsky et al., 2018; Shcherbakov et al., 2017; Zaitseva et al., 2017, 2018).

### Contribution of this paper to the literature

- Features of teaching Mathematics to children aged between eight and nine with the use of UCHI.ru interactive educational platform has been specified: integration of supplementary interactive assignments into the educational process and extra-curricular activities.
- Probable problem areas in teaching mathematics using websites have been identified. These areas concern two aspects: content and technological levels of UCHI.ru interactive educational platform.
- The effectiveness of UCHI.ru interactive educational platform aimed to form mathematical skills in primary school students due to supplementary interactive assignments performance has been proved.

89% of children use the Internet in Russia daily. 37% of them surf the Internet for 3 - 8 hours on week days, and 47% on weekends (Kvon et al., 2017, 2018; Pyankova & Matviyuk, 2014). Mobile Internet is twice as much popular with children as with their teachers and parents. Most children use the Internet to find interesting information. There is a real opportunity to teach children math using educational websites.

All educational websites for children have a common substance: desire to make learning and cognition more interesting, understandable and interactive. UCHI.ru interactive educational platform was chosen for the research as it met specified criteria: website rating; convenience of the site interface for primary school students' work; individual educational route for a primary school student; opportunity for independent selection of educational activity mode; free educational services.

In foreign pedagogical science, there is noted profound range of studies on the problem of teaching with websites. In domestic pedagogical literature this problem is studied insufficiently.

Modern educational web-resources are divided into the following groups: web-sites of educational institutions; web projects that implement educational process remotely; web sites that disseminate educational information; web sites for scientific research; web-sites of information-reference character; websites of competitive Internet projects; web-sites of educational-methodical associations; educational communities in social networks; educational web services (Griban & Griban, 2015).

We arranged teaching of mathematics for children aged 8-9 years using UCHI.ru interactive educational platform at lessons and extra-curricular activities. We believe that age and individual characteristics should be considered while arranging the work: general outlook of the child necessary to present the content of a mathematical task; formation of mathematical concepts in child (e.g. names of shapes); formation of specific mathematical operations in child to solve tasks (e.g. count-down); solution algorithms formation in child (e.g., general methods of tasks solution); creating a "situation of success" for the child (Sabirova & Zakirova, 2016).

The goal of the research is to prove the validity of mathematical skills formation in primary schoolchildren through the interactive educational platform UCHI.ru.

The objectives of the research are:

- 1) To identify features specific for teaching mathematics applying UCHI.ru interactive educational platform;
- 2) To determine problem areas in arranging teaching mathematics applying UCHI.ru interactive educational platform (analyses of teachers' and parents' questionnaires).

## LITERATURE REVIEW

A high level of training through educational websites application is pointed out in foreign pedagogical science.

Application of information technologies in education is examined in the study of (Eileen Scanlon, 2014). It investigates the influence of digital epoch on scientists' work; the relationship between research and learning applying information technology is studied. Researchers assume that the mode of cognition process has changed. The paper investigates two areas: conducting research (in particular, activities related to publication and dissemination of research results) and training. The links between these two activities are studied in terms of new training technology reflected in academic practice both for teaching and research.

One of such teaching technologies is online education. Nowadays, there is paid much attention to development and research in this field. A large number of authors consider websites application for different participants in the educational process: learning through the Internet is regarded by Castaño-Muñoz, Duarte, and Sancho-Vinuesa, 2014); they analyze the impact of interactive training on the quality of training. Scientists believe that mixed learning is more effective than full-time training. Research results show that the study of educational material on the Internet is useful only when it occurs in an interactive form. About mixed learning is written in the research of Wang (2017). Researchers tell that problem oriented online education is in the base of effective mixed learning, and especially integration of online and classroom education helps to achieve higher results in process of teaching. Researchers

proved the advance in self-estimation of students, their participation activity increase in other events within process of mixed learning.

About need of training teachers to new education is written in the research of Ntuli and Kyei-Blankson (2016). The article tells about necessity to train future pedagogues to effective use of Internet resources for teaching children. For this purpose, researchers propose to improve tasks on practice and include educational course on the use of Internet technologies. In this article, the experience in solving of this matter has been very interesting. In our research, here is also shown the problem of pedagogues' unpreparedness to apply educational websites in process of teaching mathematics.

Analyses of educational institutions' websites accessibility and suggestions of the ways to improve the design of educational institutions' web pages are conducted in the research of Kesswani and Kumar (2016). The authors note that preparation of accessible sites was not earlier so much important as today. Due to the increase in accessibility and compliance with accessibility standards, more researches on this issue appear nowadays. The paper has analyzed the availability of websites at higher educational institutions in different countries. Besides, the authors propose recommendations aimed to improve the design of web pages of educational institutions. The issue of websites availability is of interest for our research in terms of limiting websites application. Many websites allow access to a specific range of users. The terms can be as follows: registration on the website, membership in the educational institution, payment for the content. The experience of websites openness and accessibility is compelling for the research. The interactive educational platform UCHI.ru has a limit for users (learners) of 20 tasks per day after 16.00. On the one hand, this fact can be viewed positively - children are not overloaded with additional tasks; on the other hand, it can have some negative results - there are children for whom 20 tasks are not enough to develop some mathematical skills.

The study on the ease and effectiveness of websites application, in particular the Morpa Campus website, was carried out by Çetin and Özdemir (2013). The researchers tried to find out if the learner can effectively use the Morpa Campus website to perform basic and complex tasks during navigation on course topics. The experiment was aimed to identify the convenience of the site and not results of tasks performance. Participants are children aged between 9-11 years. The following encompasses main criteria to understand children's demand in website: efficiency, satisfaction and ease of application. The research showed that this site is very popular with learners, but there are some problems with usability. It was found out that technical difficulties caused problems in using the web-site: problems with the Internet connection, long waiting time for server's response, low speed of information transferring.

Evaluation of educational websites for parents who have children with attention deficit disorder and hyperactivity is shown by Ryan, Haroon, and Melvin (2015). Researchers note that getting of actual and correct information about this disorder has great importance, especially in account of widespread delusions. The authors tried to find out the influence of such websites on parents' views and get links for optimization of users' experience.

One of the advantages in teaching with the help of websites is possibility to provide individual learning route for students. In the research of Dogan and Dikbiyik (2016), the work of adaptive web teaching intellectual system named OPCOMITS is shown. There is used conceptual model of mapping for themes regulation hierarchy, for evaluation of student's knowledge about theme and for stimulation of learning. Thus researchers propose adaptive and effective educational environment that evaluates student's knowledge according to theme, enhances inverse relationship, diagnoses blank in knowledge and suggests the ways of work out.

Experimental research was performed by Chodos et al. (2014); they developed a model to describe student's actions in a simulator of virtual world. The Avatar capabilities model is used as a basis for building medical students' activity. Simulation considers student's actions (studying of movement, experience of impact on objects and social interactions). Such modeling is important for assessing students' practical activities through imitation.

Also there attains interest the research of Sylaiou et al. (2017) about teaching with the help of virtual world. The researchers write about teaching with the use of virtual museums. This article helps to understand educational influence of virtual models. The process that is suggested by authors for achieving educational result is based on the specifics of introducing complex 3d constructions.

Researchers Sinyak and Tarasevich (2014) investigated the role of the website in scientific and educational activities. The article proves the urgency to develop the site at the department of production management and real estate economy at Belarusian State Technological University. Main characteristics of the site, requirements for it and tasks of its use in the educational process are specified. Additional information services of the site aimed at openness and increase of education quality are being discussed. This article provides the circle of users of the site; and in accordance with users' requests, it offers a form for developing information structure of the website. In the framework of our research, the convenience of interactive educational platform interface for work of children aged 8-9 years is considered.

Works of Russian scientists aimed at studying Web sites application are of concern. Thus, Griban and Griban (2015) conducted the research to describe professional self-actualization applying web sites. The authors assume that educational websites as components of the Internet space play a special role in educators' professional activity in modern conditions. The paper presents the typology of educational websites for self-realization; they allow to create a socially useful product in professional activity to promote the recognition of the employee's work and achievements. As for our research, the very process of organizing training with the help of a website is useful. We believe that if mixed instruction is applied, then there is need to create and place teaching materials for teachers or parents on the same website. The lack of methodological materials on the use of educational websites leads to an incorrect definition of their didactic role in the educational process.

## MATERIALS AND METHODS

### Experimental Base and Methods of Research

The research was conducted in the city of Kazan, the Republic of Tatarstan, the Russian Federation; it had three stages of the experiment: stating, forming and control.

Questionnaire-diagnostic methods (questioning, testing) to reveal the dynamics of mathematical skills formation were employed in the process of UCHI.ru interactive educational platform application.

We verified the ability:

- to use properties of arithmetic operations for the convenience of calculations;
- to solve problems in many ways, to build a mathematical model of the problem;
- to calculate a perimeter and / or an area of non-standard geometric figure;
- to compare values (length, weight);
- to interpret information obtained in a simple research.

Two controls were implemented: at the beginning of the research (the stating stage) and at the end (the control stage). Learners solved test tasks in mathematics in hard copy within one academic hour.

Second grade school students aged between 8-9 years took part in the research. The total number of students participating in the research made 311 people; 12 teachers were recruited as well. The study was conducted from December 12, 2016 to April 28, 2017.

All teachers in these grades have the highest qualification category. The final control in the subject "Mathematics" for the previous academic year in the experimental and control groups showed almost the same academic performance.

Group number 1 (for observation) includes grades that have already been working with the interactive educational platform UCHI.ru since the age of 7. Group 2 (control group) is made of grades that do not work with the interactive educational platform UCHI.ru. Group number 3 (experimental) embodies grades that included tasks of UCHI.ru interactive educational platform into their training and extra-curricular activities at the forming stage of the experiment.

### Characteristics of UCHI.ru Interactive Educational Platform

The methodology of our study is the educational website UCHI.ru (<https://uchi.ru/>). This website is an interactive educational platform.

The description of the interactive educational platform UCHI.ru.

This platform has been designed to teach school subjects to school students in all regions of Russia (**Figure 1**).

At the moment, the platform has registered: 100,000 teachers, more than 1500,000 students, 800,000 parents, 20,000 schools in Russia. Professional methodologists have created an interactive course in mathematics for primary school on the platform; it contains interactive assignments on primary school topics. This course was integrated into the process of primary schoolchildren teaching.

265 thousand school children of 1st-4th grade from every region of Russia

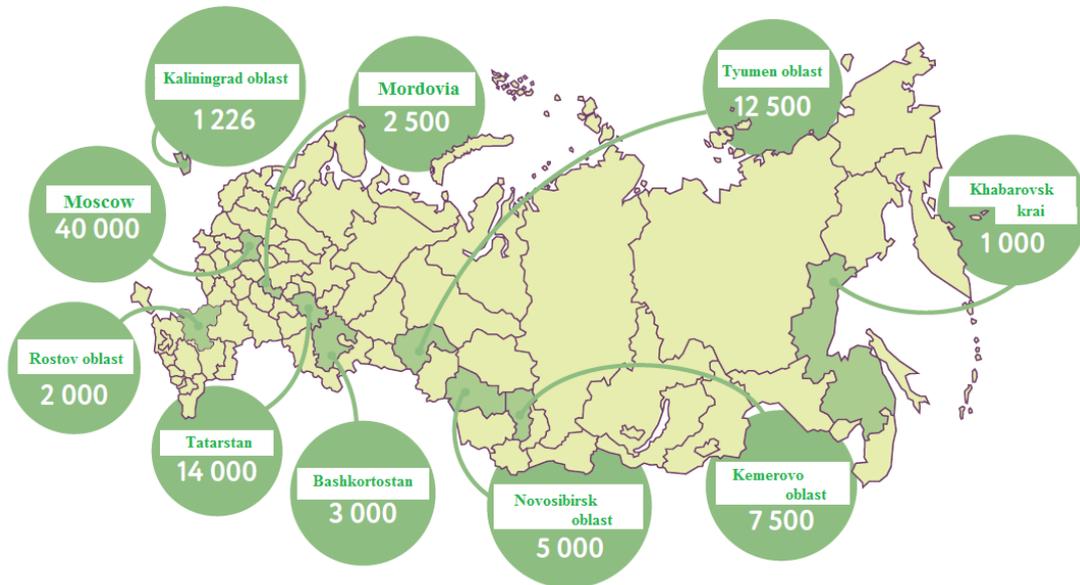


Figure 1. The number and geography of registered users in Russia

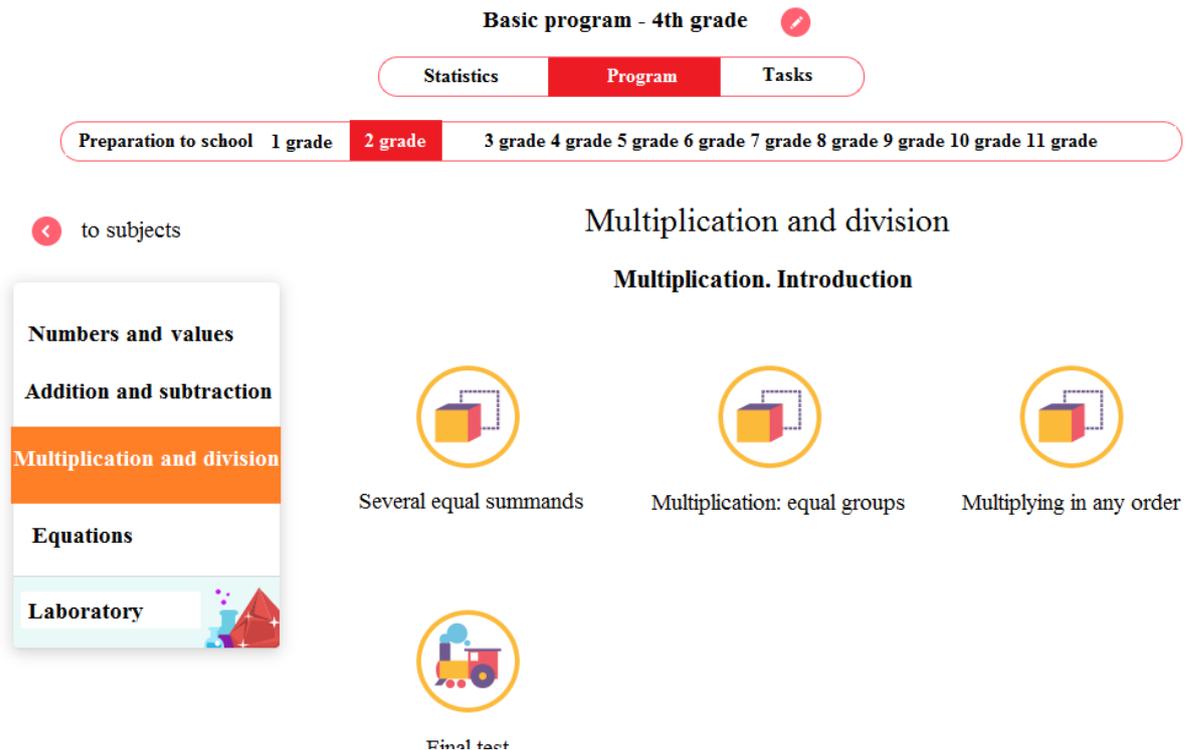


Figure 2. Structure of the program in mathematics

The description of the interactive course in mathematics on the UCHI.ru platform.

The course includes interactive assignments for pupils of 1-4th grades. The material is divided in compliance with prime school curriculum (Figure 2). Each class contains a program that reflects sections of “Mathematics” as the academic subject; each section has topics, and each topic is divided into several lessons. Lessons consist of interactive tasks; assignments are aimed to test mathematical skills.

back

exit

Divide 10 crystals and put them into boxes, so that each box should have 5 crystals.

Total number of crystals: 10. Number of crystals in each box: 5

It means that 10 is divided by 5.

$10 : 5 = \square$

How many boxes are filled ?

Figure 3. The interactive characteristics of the UCHI.ru platform work

The platform works in the interactive regime (Figure 3): the system asks the child a question and reacts to the given answer; in case of correct decision, it praises the student and suggests a new task; in the event of an error, it asks clarifying questions to help the student to come to the right decision; besides it selects the level of complexity.

The algorithm of work using the interactive course in mathematics on the UCHI.ru platform.

Second grade students were recruited for the research. Table 1 shows how the plan for teaching mathematics was created.

**Table 1.** Thematic plan for teaching mathematics

Grade	Section	Subject	Tasks	Mathematical abilities training
2	Numbers and account	Round numbers up to 100	Numbers up to 20. Revision; Groups of 10 and tens; Round numbers order; Names of round numbers; Final test	read, write down and compare numbers within 100; compare values
		Numbers and the account up to 100	Recording of two-digit number; Round number and units; Names of numbers; Account forward and back; Tens and units, Categories of number; Comparison of numbers: cubes; Comparison of numbers: numerical axis; Add and subtract 1 and 10; Numbers up to 100. Level 1. Training; Numbers up to 100. Level 2. training; final test	read, write down and compare numbers within 100; compare values
	Addition and subtraction	Addition and subtraction to 20. Different ways	Addition without transition. Revision; Calculations to 20. Revision; Calculations on numerical; Addition with transition. Training; Complement numbers up to 20; Simple calculations. Training; Calculations with number 9; Calculation on an operations procedure; Find 10, then calculate; Different calculations. Training; change operations procedure; calculate in any order; Brackets and operations procedure; Final test	find the sum and the difference of numbers within 100: to use properties of arithmetic actions for calculations convenience
		Addition and subtraction up to 100 without transition through ten	Calculation with round numbers. Training; Addition according to categories; Calculations according to categories. Training; Final test	find the sum and the difference of numbers within 100: to use properties of arithmetic actions for calculations convenience calculate perimeter and/or the area of a geometrical figure
		Addition and subtraction with transition though ten. Training	The next round number; Addition of the number to 100; Addition to round number; Transition through ten; Add and subtract 8 and 9; Two-digit and one-digit. Training; Calculation in any order; Find round number; Final test	find the sum and the difference of numbers within 100: to use properties of arithmetic actions for calculations convenience
		Addition and subtraction to 100 with transition through ten	Addition with transition; Subtraction with transition; Calculations with transition; Connection of addition and subtraction; Different calculations. Training 1, 2; Addition of close numbers. Training; Calculation according to categories. Training; Calculate one after another. Training; Calculation in any order. Training; Connection of addition and subtraction. Training; Final test	find the sum and the difference of numbers within 100: to use properties of arithmetic actions for calculations convenience consciously follow an algorithm of performance of actions in expressions with brackets and without them, consciously follow algorithms of oral and written addition and subtraction of numbers within 100
	Multiplication and division	Addition and subtraction by a column. Introduction	Addition by a column. Introduction. Subtraction by a column. Introduction. Transfer, take ten; Final test	find the sum and the difference of numbers within 100: to use properties of arithmetic actions for calculations convenience consciously follow an algorithm of performance of actions in expressions with brackets and without them, consciously follow algorithms of oral and written addition and subtraction of numbers within 100
		Multiplication. Introduction.	Several identical addends; Multiplication: equal groups; Multiply in any order; Final test	find different ways of problem solving that reveal concrete sense of addition, subtraction, multiplication and division, comparison of values
	Multiplication and division	Division. Introduction	Divide equally and according to the contents; Tasks on division; Division components; Connection of division and multiplication	find different ways of problem solving that reveal concrete sense of addition, subtraction, multiplication and division, comparison of values calculate perimeter and/or the area of a geometrical figure
		Multiplication table	The multiplication table to 25; The Multiplication table on 2, 3, 4, 5; The multiplication table 2*5; The multiplication table on 6, 7, 8, 9; The multiplication on 0, 1, 10; The multiplication table from 36; The multiplication table on 6-10; The multiplication table to 100	find different ways of problem solving that reveal concrete sense of addition, subtraction, multiplication and division, comparison of values
Equations. Introduction		Expressions with an unknown number; Find the unknown on the table; Find the unknown number. Training 1, 2; Solution of equations; Final test	interpret information obtained at conducting simple researches (to explain, compare and generalize data, to draw conclusions and forecasts)	

School students performed 92 tasks at math classes in total. The program of an interactive course of mathematics is supplemented with the section “Laboratory” in which problems of different level of complexity (Figure 4) are included. Tasks were performed as extra-curricular activities; the teacher advised school students if they faced difficulty.



Through the statistics teacher sees the activity of the child. The latest activity is shown in the table. For successful learning of basic program learner gets diploma.

## RESULTS

### The Stating Experiment

Before work on the interactive educational platform UCHI.ru, second grade students were given tests aimed to reveal the formation of their mathematical skills:

- the first task identified skills for using arithmetic properties for the convenience of calculations;
- the second task identified the ability to find different ways to solve the problem. School students had to write down a mathematical model of solving problem;
- the third task was aimed to calculate the perimeter and area of a non-standard geometric figure;
- 4 task identified the ability to compare values;
- the 5th task required to interpret the information obtained by the way of simple research (explain, compare and generalize data).

The results of the stating stage (the percentage of successfully performed tasks) (**Figures 6-8**): in the experimental group - 46.2%, in the control group - 46.6%, in the group for observation - 77.8%.

1, 2 and 5 tasks caused a greater number of difficulties.

Children should find the value of a mathematical expression in the first task. They had to perform four arithmetic operations: addition, subtraction, multiplication and division. Children in the experimental and control groups had errors in calculations since such arithmetic operations as multiplication and division had been explained to them not long before.

As for the 2nd task, it was difficult for children to build a mathematical model of the problem, though the problem was solved. The group for observation implemented the second task very well. But the experimental and control groups showed a low percentage of implementation.

The 5th task was supposed to solve an unusual task that required reasoning. Children from all three groups made mistakes.

Let us note that in the 4th task aimed to compare values (length, weight), children distinguish homogeneous values; however, they make mistakes when it comes to express some units with the help of others. There were more mistakes in the experimental and control groups.

### The Forming Research Phase

This stage provided the development of mathematical abilities in primary school students by means of the interactive educational UCHI.ru platform. The department of preschool and primary education of IPE KFU and methodologists of the UCHI.ru company arranged integrated training for teachers of the third group according to the program "Use of the interactive environment "Mathematics. UCHI.ru" at primary school". The program was designated to perfect primary school teachers' professional competences in teaching "Mathematician" applying the interactive educational UCHI.ru platform. The training course considered principles of building and structure of the interactive course "Mathematics", methodical features of studying some topics in Mathematics with the use of the interactive UCHI.ru platform, psychological and pedagogical features of primary school students trained by means of educational platforms. The round-table discussions, that followed the training, considered approaches to tasks performance of the interactive educational UCHI.ru platform in class and extracurricular activities. Thus, teachers of this group were trained for the research.

Teachers of the 3d group held parents' meetings in their grades from February 3-10, 2017. Differentiated extracurricular work on the fulfillment of supplementary tasks (at school students' requests) on the interactive educational platform UCHI.ru was regarded.

The forming stage was conducted from January 16 to April 14, 2017. The 3d group of students and their teachers were engaged in this work.

In the forming stage, the teachers elaborated technological maps of forthcoming lessons, and tasks of the interactive educational platform UCHI.ru were integrated into the content of these lessons. Technological maps of lessons were created in compliance with thematic planning of lessons according to the educational and methodical complex "School of Russia": 2nd grade, topics: "Written technique of addition of the type  $45 + 23$ ", "Subtraction of the type  $52 - 24$ ", "Specific meaning of multiplication", "The commutative property of multiplication",

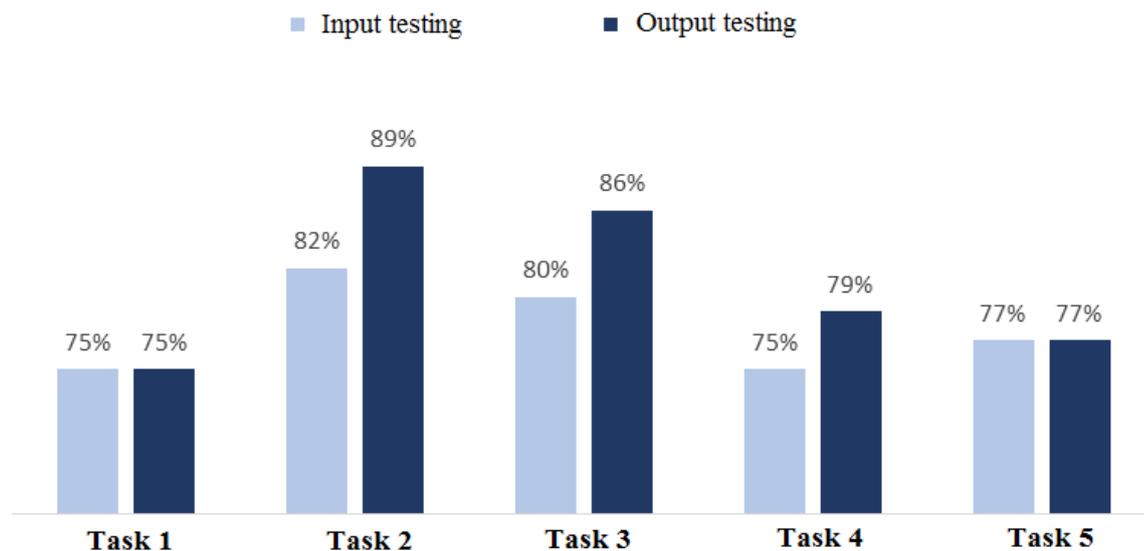


Figure 6. Percentage of school students performed tasks (group 1)

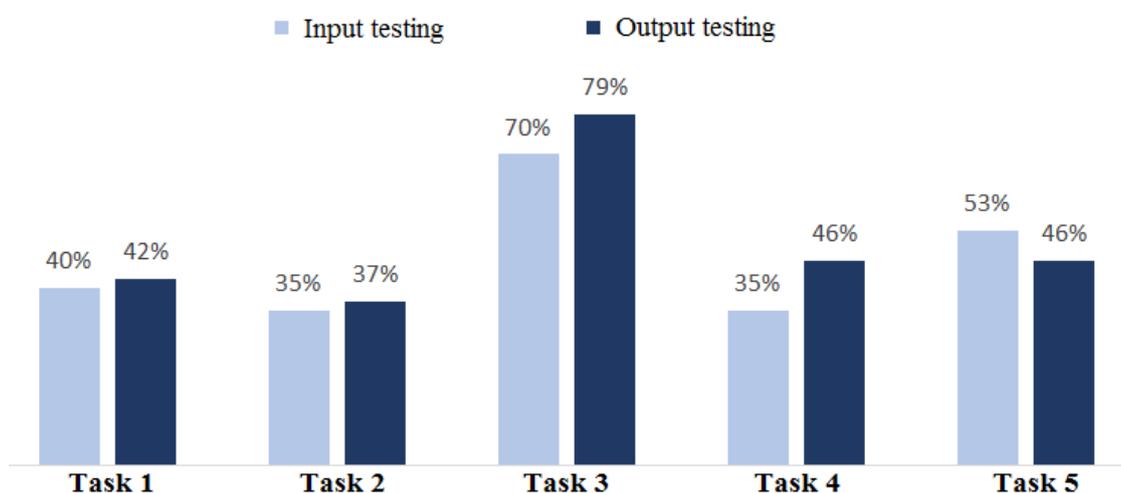


Figure 7. Percentage of school students performed tasks (group 2)

“Multiplication and division of numbers”. Besides, extra-curricular lessons were held to solve non-standard tasks using the educational interactive platform UCHI.ru.

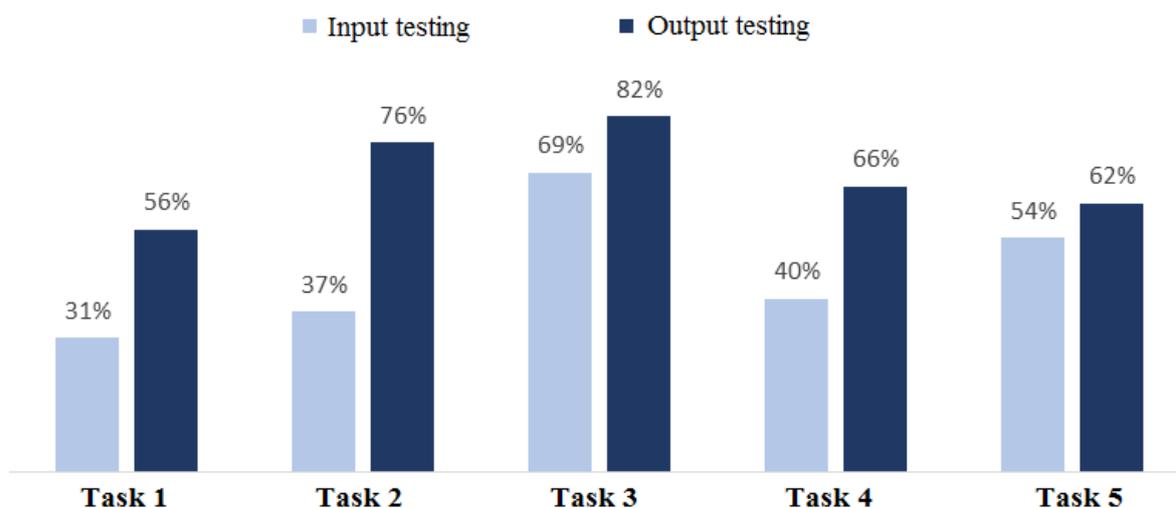
The forming stage of the research resulted in discussions. It was noted that school students’ educational motivation was improved. Children willingly performed interactive tasks, showed interest, discussed solutions and tried to solve non-standard tasks on the platform UCHI.ru.

### The Control Stage

Re-diagnosis was elaborated on the basis of two variants of tests for each grade in the same way as it was done for the stating stage of the research: 5 tasks in compliance with the educational program “School of Russia”. Diagrams below specify the results of children’s test tasks performance in the stating and control stages.

Results of the control stage (percentage of successful task performance) (Figures 6-8): in the experimental group - 68.4%, in the control group - 50%, in the group for observation - 81.2%.

The average success rate of tasks performance in the 2nd grade in the experimental group increased by 22.2% compared to the control group with 3.4%. At the same time, group 1 which studied on the UCHI.ru platform before and during the research (forming stage of the research), showed steadily high results in the stating and control stages of the research, respectively. It should be noted that children in group 1 have been studying with the use of the interactive educational platform UCHI.ru since the age of 7.



**Figure 8.** Percentage of school students performed tasks (group 3)

Group No. 1 (for observation) showed steadily good results in our research.

Group No. 2 (control group) displayed average results, which slightly increased by the end of the research, but not in the 5th task.

Group No. 3 (experimental group). Scores in the stating and control stages significantly differ. At the end of the research children showed high achievements on all tasks.

## DISCUSSION

The development of information and communication technologies changes the process of training. We can't help considering modern realities. Modern educated people face quite different requirements. Children should be taught to study using information space (Ivanova & Osmolovskaya, 2011).

Interactive educational platforms are an integral part of modern primary school. Each student has an opportunity to build his/her educational route as such educational activity is variable and multilevel and helps achieve actual results (Chernobay, 2012).

However, the analysis of questioning (56 respondents) conducted among teachers and parents made it possible to determine problem areas in training mathematics with the use of the interactive educational UCHI.ru platform. Problem areas are revealed in two aspects:

content level

- the order in which topics are arranged on the website does not always correspond to the program of training in mathematics for a concrete class;

- there are not enough tasks on comparison of values (length, weight, time, area, volume, cost, speed).

- there are no methodical recommendations (instructions) for teachers and parents on class and extracurricular activities arrangement with the use of websites;

- there are no interesting mathematical facts, there is no information on great mathematicians;

technological level

- the child is registered more often as a part of a class; when transferred to another school he/she loses all achievements;

- teachers' private office results of work are reflected on the website of all students in class, however children themselves "do not see" leaders in training;

- the main character is not interactive;

- the mobile version is not quite optimized;

- the possibility to work per day is limited for users (20 tasks after 16:00).

## CONCLUSION

The conducted research specified that supplementary interactive tasks of UCHI.ru interactive educational platform efficiently impact the formation of mathematical abilities:

- to use properties of arithmetic actions for the convenience of calculations;
- to solve problems applying different ways, ability to build a mathematical model of the task;
- to calculate perimeter and/or area of a nonstandard geometrical figure;
- to compare values (length, weight);
- to interpret information obtained after conducting simple researches in primary school students.

At the end of the research, children of the experimental group showed high achievements in mathematical tasks performance in comparison with the control group where UCHI.ru interactive educational platform was not applied.

In our opinion, UCHI.ru interactive educational platform is helpful for teaching mathematics to 8-9-year-old children as this platform implies the following opportunities:

1. to promote mathematical knowledge and mathematical education;
2. to increase students' motivation due to strengthening of interactive nature of training and intensification of students' educational activity;
3. to provide an individual educational route of primary school students: to eliminate gaps in basic knowledge for each student, to overcome individual difficulties; to provide children having high motivation and outstanding mathematical abilities with appropriate conditions for development.

We note positive dynamics of UCHI.ru interactive educational platform impact on educational achievements of each child - the participant of the research, regardless his/her original level of mathematical abilities formation.

UCHI.ru interactive educational platform can be recommended as supplementary didactic material in training mathematics.

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