

EEIA 2019
**International Conference "Education Environment for the
Information Age"**

PRIMARY SCHOOL, SCHOOL OF POSSIBILITIES

Natalia F. Vinogradova (a)*

*Corresponding author

(a) Dr.Sc. (Education), professor, corresponding member of the Russian Academy of Education, Head of Laboratory for Primary Education, Institute for Strategy of Education Development of the Russian Academy of Education. Russia, 105062, Moscow, Makarenko str., 5/16, riit@instrao.ru

Abstract

The author describes the potential that a modern primary school acquires to improve the quality of education at the first level of school education and to ensure significant results in the development of the younger schoolchild. The paper describes the values of primary education, taking into account the psychological ideas of constructing the didactic process; evaluates the components of the student's readiness to interact with the outside world as a planned learning outcome. In the educational process, the most important components of the readiness of a growing student of a primary school for adaptation and successful existence in a changing world are of particular importance: intellectual readiness, communicative, social, activity, creative and emotional one. The author considers the ways of achieving the requirements of the Federal State Educational Standards for the development of a younger schoolchild: a new classification of lessons, ways to differentiate the learning process. The author suggests a new direction in the design of the didactic process in the primary school of the 21st century: the lessons types according to priority activity in which the student participates at this stage of education. The author distinguishes three major types of lessons in a modern primary school: sensory, research and explanatory types of lessons. The idea of individually differentiated education described in the paper is based on the specific pedagogical diagnostics.

© 2019 Published by Future Academy www.FutureAcademy.org.UK

Keywords: Modern primary school, differentiated education, diagnostics.



1. Introduction

Who is a primary school student? How does the beginning of school life affect the change in his/her social status? Different categories of stakeholders will answer these questions in different ways. The teacher, the parent, the psychologist, the child him/herself will see the various virtues of learning.

The teacher will say: “the child has entered a new stage of his/her life, now he/she will learn to read and write, to orient him/herself in the surrounding world, to use the calculations, find new friends...”

A psychologist will add: “he/she is a person who will solve the main task of this stage of his/her life - learning to learn, acquiring knowledge, and most importantly - discovering him/herself.”

A parent will note: “a schoolchild is a child, whose childhood has ended, and a stage of endless volitional effort has begun - I cannot, but it is necessary ...; I do not want, but it is necessary ...”

Probably, I will surprise the reader with my comment - and yet all the participants of this unusual survey are right, this means that all the features of the new life state of the child should be taken into account in the educational process.

Pages on history of pedagogy

Many years have passed since under the Decree of Grand Prince Vladimir parents brought children to school with tears in their eyes: so they felt sorry for their children, whom the teachers would obviously “torture there”

Many Slavic families did not understand for a very long time what education brings to a person’s destiny, how it influences not only the culture of an individual member of society, but in general, progress of society (Vinogradova, 2013).

A significant majority of pre-schoolers today are willing to go to school, but, unfortunately, the number of children who do not want to learn increases every year. What is the reason for this phenomenon?

In my opinion, this is largely due to the changing priorities of preschool education. Let us recall the pages of the history of pedagogy, in this case of the Soviet period. The main task of preschool childhood was to create favourable conditions for the disclosure of the child’s abilities, the development of his/her individual abilities in role-playing, artistic and theatrical activities. The children moved a lot, played music, sculpted with pleasure, painted, played roles. All this developed those qualities of the personality of the future student, which made learning successful. Today we can say that teachers almost do not pay attention to all this, because the efforts of preschool education focus on the preparation of children for learning at school. In contrast to all the provisions of psychology that readiness for school is not in the early “passing” of the program of the first or second form, but involves the development of those mental tumours that form the new status of a growing personality (“I am a student”, “I am a schooler”, “I am a classmate”), ensure the development of his/her ability to understand a learning task, select the means to solve it, control his/her training “steps”, etc. All of the above creates the conditions for realizing the special functionality of the initial stage of schooling - the student’s awareness of the social importance of education, assuming responsibility for his/her successes and achievements.

2. Problem Statement

On the value of primary education

Comparing the necessary tasks facing the Society and Childhood, scientists - psychologists, teachers, methodologists, physiologists - are called to determine the optimal ways of development of the modern child, while searching for opportunities to level existing negative trends (Feldshteyn, 2011). This idea expressed by Academician Feldshteyn (2011) emphasizes the dependence of the value of any pedagogical phenomenon on the tasks that it solves.

For many years, teaching was oriented towards the predominant formation of knowledge-and-skills, assuming that the process of mastering the content of the subject will ensure the development of the student. At the same time, the value of education from the point of view of psychology is the formation of a personal (personified) attitude of a growing personality towards the world around him/her, the formation of his/her ideals, desires, motivation, the significance of which is determined by the axiological orientation of the educational process. This essential quality of modern education was the first to determine its content at the beginning of the 21st century, when a group of scientists worked on a draft of the education standard of the first generation. In the “Federal Component of the State Standard of General Education” for the first time at the level of state demand, the priority was defined as the activity nature of education, the focus of educational content on the formation of general learning skills and abilities, generalized methods of learning, cognitive, communicative, practical, creative activity, on students’ getting experience in this activity (Federalniy komponent gosudarstvennogo standarta obshchego obrazovaniya, 2004). This new look at the essence of education was the answer to the question of what the results of primary education should be, that is, “what will change in the personality of a schoolchild by the completion of training at the first school level, how will he/she fundamentally differ from him/herself, the former?”

3. Research Questions

The research questions include the integration of the main core, the acquisition of which in primary school ensures the success of further education; and the creation of an intellectual background that contributes to the development of the erudition and the general culture of the personality of a schoolchild

4. Purpose of the Study

Education quality improving is one of the top priorities of the modern school. That is why defining the potential of a modern primary school in creating conditions for this process is especially important as well as suggesting methods to ensure the development of a primary school student and achieving by him/her high learning outcomes.

5. Research Methods

The author uses text analysis as well as comparative analysis in her research.

6. Findings

A transition from the priority of the knowledge paradigm of education to the activity allows affirming that education should be represented by the most important components of a growing personality's readiness for adaptation and successful existence in a changing world. These components are the following:

1. Intellectual readiness, i.e. the ability to independently acquire and apply the knowledge gained, the ability to work with information presented in different forms; the ability to use mental operations, to construct judgments, to bring evidence.

2. Communicative readiness consists of the ability to observe the rules of participation in the dialogue, taking into account the speech situation and the culture of communication, and also involves the ability to build monologues, to distinguish between texts, such as description, narration, reasoning, instruction, reference article, etc.

3. Social readiness, which is a set of skills to cooperate (lead, obey, be responsible for the overall result, evaluate the contribution to the common work), ability to self-development, responsibility for the consequences of one's behavior in the environment.

4. Activity readiness is determined by the level of mastery of various activities (learning, playing, work), the ability to plan the activities, to trace the process of solving the educational (or common life) task; the skill of applying regulatory actions (to adopt a different point of view, to respect the opinions of others, to control one's own actions, etc.).

5. Creative readiness is represented by the ability of a growing personality to solve various educational and everyday tasks creatively; a set of skills to improvise, to refuse the direct repetition of the sample, the propensity for initiative and independence.

6. Emotional readiness, i.e. the ability to feel, to experience, to respond emotionally to events related to cognitive activity, school life and everyday joys and sorrows (Vinogradova, 2017).

I emphasize that all components of a person's willingness to interact with the outside world are interconnected, complement each other and reflect the behavioural features of a person's life activity.

In connection with the stated provisions, it is necessary to discuss modern approaches to the selection of the content of primary education. The capabilities of a child of preschool and primary school age imply that, under certain conditions, he/she can learn a huge amount of knowledge. This often "bribes" parents when they are offered early learning, for example, three foreign languages at once, "fast" reading, "fashionable" information technologies ... But in this case, the principle of knowledge relevance for a child of a given age is underestimated: we offer them knowledge that is not decisive for their intellectual and personal development. In this sense, in my opinion, this is the study of the subject "Basics of religious cultures and secular ethics", the classification characteristics of natural science concepts in the "World around" course, the tenacious tendency to transfer part of the content of the subject of mathematics from the general school, the study of so-called "dead" languages, etc.

Pages on history of pedagogy

At the end of the last century, this situation was in the zone of special attention of an outstanding psychologist A.V. Zaporozhets, who complained about the artificial acceleration of the development of

children, the unjustified “rush” forward, ignoring the negative psychological risks that acceleration leads to. The scientist spoke of the need for amplification, that is, the ratio of the result of intensive child learning to the assessment of the physical and mental strength spent on it; creation of conditions for the development of activities that are relevant for this age, in the process of which basic personal education is developed (as cited in Vinogradova, 2013).

This position of psychology is not sufficiently taken into account today. “Fashionable” subject areas, innovative technologies that are used in primary school conflict with the abilities of a child of this age and the values that he/she needs for the development and successful adaptation to changing environmental conditions.

Gradually, a serious “cognitive fatigue” accumulates, which gives a delayed effect, a persistent negative attitude toward learning (I also remind about health problems).

Here are examples from the statistical report of the Academy of Medical Sciences of Russia.

From 1 to 9 grade, the number of children of the first health group decreases by 18%, and the number of schoolchildren of the third health group increases from 6% to 17%. Pathology of vision is observed in almost 6% of first-graders and 24% of ninth-graders. The pathology of the musculoskeletal system increases by almost 2.5 times. An increase in diseases of the nervous system is observed in 15% of junior schoolchildren and 33% of adolescents.

Many problems arise with the introduction of information and communication technologies. Certainly, it would be strange to keep modern children away from new ways of obtaining information, but it is obvious that the didactics of the primary school, taking into account the informational immaturity of the younger schoolchild, should establish the feasibility, share and timeliness of introducing new information technologies and innovative methods into primary education. Only in this case will they be valuable for a growing personality.

In order for new modern technologies to become a value for a student, they should comply with the laws of child’s development and comply with certain requirements. For example, for the period of introducing ICT as a direct means of learning and self-study, the child should have formed the methods of cognition of the surrounding world, typical, sensitive for a given age period (first of all, sensory culture, reading and communication literacy, the ability to design the process of solving a learning task, etc.).

Pages on history of pedagogy

Today we can definitely speak about the substantial contribution of psychological ideas to the formation and development of didactics. It is psychology personified by A.N. Leontyev, D.B. Elkonin, V.V. Davydov, their students and followers which drew attention of the theory of learning to the role of activity, in particular, the leading activity, in the mental and personal development of the child. The traditional scheme of the public school was as follows: reading the text (explanation of the teacher) —the interpretation of what was read — its retelling. That is, in accordance with the psychological laws, the student participated in three acts: perception - memorization - reproduction, and with such a reproductive nature of learning, the development of intellectual actions and operations suffered (as cited in Vinogradova, 2013).

The results of the Russian monitoring, international comparative studies of education quality (PIRLS, PISA, TIMSS) show that methods aimed at learning and reproducing knowledge and skills prevail in primary education (Kovaleva, 2016). Among the 75% of students who successfully coped with the tasks of reproducing subject knowledge and skills in a standard situation (Russian), approximately 20% of them cannot apply their knowledge in a non-standard situation that require not only the participation of memory, speech-reproduction, but also thinking, imagination.

What are the negative consequences of the uncontrolled and frequent use of reproductive activity in the educational process?

First, knowledge is absorbed unconsciously, only at the level of memorization.

Secondly, students do little tasks aimed at the development of logical thinking, speech, explanation and reasoning.

Thirdly, children work mainly in the system of closed practical problems, when the solution algorithm needs to be recalled, not modelled.

Fourthly, the student performs mainly three roles: the student-viewer (“watch carefully, read”), the listener (“listen carefully”), and the speaker (“remember and reproduce everything”).

As is known, the traditional school was blamed by this nature of learning; therefore, the effect of development was achieved in spite of, rather than through, the process of learning.

At the end of the twentieth century, psychologists managed to “reach out” to teachers and disclose the crucial importance of the activity component of the educational process. The opportunity provided by the school, forming the leading activity of the first school stage of education, provides, firstly, its formation as a socially significant phenomenon, secondly, affects the acquisition of new skills that are essential for learning tomorrow. Today, the realization of this possibility is quite plausible, since the goal of the formation of educational activities is fixed in the Federal State Educational Standard of Primary General Education (2011) in the form of metasubject results of mastering the main “educational program of primary general education”: “mastering the ability to accept and maintain the goals and objectives of educational activities ...; the formation of the ability to plan, monitor and evaluate training activities in accordance with the task and the conditions for its implementation...” (Federalniy gosudarstvenniy obrazovatelniy standart nachalnogo obschego obrazovaniya, 2011).

A little fly in the ointment... Unfortunately, today a number of teachers believe that the concepts of “learning” and “learning activities” are synonymous. Moreover, we are sure that if a child enters school, raises a hand in class and performs homework, it means he/she is engaged in educational activities. It is a pity, but such teachers do not understand that they do not use the possibilities of constructing an educational process, in which children realize, “... that they do not just do the tasks of the teacher, do not just write, draw, think, but solve the next educational task” (Friedman, 2004, p. 215).

One of the fundamental ideas of the theory of developmental education of Elkonin (1989) - Davydov (1986) is that in the process of learning activities it is important not only (and, perhaps, not so much) to get the outcome, but to build (collectively, first under the guidance of a teacher, and then independently) the general mode of action. Hence there is psychologists’ wish for the teacher: to replace the priority of presenting practical tasks with educational tasks, because it is the educational task that

answers the question “how to do”, that is, it offers the student to master generalized methods of actions, while the practical task aims the learner to get the result-answer to the question “what to do”.

Psychologists have proven that most younger students can memorize and reproduce a rule, a term, but encounter significant difficulties in applying them in a practical situation (literally reproduce the rules of the Russian language, but they write illiterately; they convey signs of a geometric figure, but they do not distinguish it from others, etc.) That is, verbal knowledge, adopted in finalized form, has little effect on the success of the activity. His/her acceptance, readiness to use are born in the process of independent activity of the student (Funkcionalnaya gramotnost mladshego shkolnika, 2018).

What features of the activity paradigm of education make it a priority at the first stage of education?

1) The purpose of such an organization of training is the formation of learning and cognitive activity, that is, the desire (motivational aspect of the activity) and the ability (procedural aspect of the activity) to carry it out. This allows organizing a differentiated approach to learning, supporting the long-term development of successful students and providing pedagogical assistance to those who are still unable to cope with the tasks.

2) The organization of an activity implies a rational connection between its process and acquired knowledge. In this case, the information received is not built as a “parallel line” with an algorithm of actions but assists them.

3) Activity is always procedural, its pedagogically justified organization leads to the awareness by each participant of step-by-step actions, the design of which gradually goes over to the full management of the student. This means that the junior schoolchild can independently and proactively solve educational and later life tasks both in the well-known and in non-standard situations on the basis of the algorithms themselves.

4) In the process of activity, the schoolchild masters the qualities of the person of knowledge: he/she develops cognitive interests and knowledge of the methods of studying reality; motivation to obtain new knowledge and independence in the search, judgment, actions, as well as important personal qualities: initiative, creativity, self-control and self-esteem.

5) Educational activities take place within the framework of students’ cooperation, which greatly enriches the possibility of its success and effectiveness. That is, the activity determines the harmony of the individual form of education with the recognition of the priority of the forms of cooperation (Vinogradova, 2016).

In order for the picture to be completely formed by the readers, I propose to answer this question: “What are the possibilities of organizing a modern lesson that reflects the activity paradigm of education, according to the age?” As a new direction in the design of the didactic process in the primary school, in our concept of education in the primary school of the 21st century, we propose a classification of types of lessons according to priority activity in which the schoolchild participates at this stage of education. I will highlight the three most important types of lessons in a modern primary school, which, in my opinion, should occupy an essential place in it. These are: sensory, research and explanatory types of lessons.

Pages on history of pedagogy

The advantage of the twentieth century primary school has always been attention to the accumulation of sensory experience by children. It all began with an early and preschool period of development, when one of the most important tasks of education was to familiarize children with the diversity of images of reality through the senses. The task of learning was to use widely observations, review and analysis of the properties of various objects, a variety of didactic games to highlight the characteristics of perceived objects and much more. It is clear that rich sensual representations became the basis for the formation of a rational view of the world around us (Vinogradova, 2013).

Psychologists and educators recognize that children of the new millennium have insufficient sensory experience and do not use the potential possibilities of sensory perception. The younger generation is the children of the information society, where direct sensory acquaintance with the object of reality (touch, smell, try ...) is replaced by technical means. Many younger schoolchildren saw how bread grows, such a coniferous forest, where a crocodile or tiger lives only on TV and on the Internet.

Certainly, this is not the fault, but the misfortune of a modern child who owns a computer, reads fluently and writes by phone, but has not been to the Zoo, picked mushrooms in the forest, played preschool didactic games "Guess to taste", "What sounded?", "Guess to touch" and other similar, very important, sensory gaming entertainment.

All mentioned above gives grounds to single out a special type of lesson for the primary school - sensory, the purpose of which is to enrich and expand the schoolchildren's sensory experience, sensory development, mastering the methods of cognition, which are based on sensory perception (observation, examination, comparison). The form of organization in this case can be not only a lesson-observation in the classroom, but also an excursion, a target walk, a viewing of flora and fauna objects living in natural conditions. Knowledge and ability to observe, obtained in the process of sensory type of lessons, become a prerequisite for mastering the skills to conduct scientific research and research.

Research lesson type. Its goals:

- 1) mastery of elementary skills of research activities - the ability to put forward a hypothesis-result, the construction of an algorithm of actions, analysis and evaluation of the result, its presentation;
- 2) development of skills to work in a situation of intellectual obstacles (to assess the ability to overcome it, to carry out a search for information);
- 3) formation of speech-reasoning: active participation in the dialogue (using logical, rhetorical, improvisational means); creating monologist statements - explanations and reasoning.

What are the methodological features of a research lesson?

First of all, they are the creation of intellectual obstacles. The value of this method lies in the fact that the student does not succeed in accomplishing the task with the available means, and the child assesses his or her capabilities, searches, tries to remove the obstacle, that is, learns to design his/her own independent cognitive activity.

In the structure of the research lesson type, the following structural components are appropriate:

The promotion of cognitive motive, that is the answer to the question "Why is this activity necessary?"

Setting a goal as a prototype of the result of an activity, that is the answer to the question: “What should be the result?”

Implementation of research activities - the answer to the question “What are we going to explore?”

The implementation of intellectual actions - the answer to the question “How are we going to act?”

Regulatory actions - the answer to the question “Have we acted correctly?”

Presentation modelling is the answer to the question “How do we present the results?”

Pages on history of pedagogy

A distinctive feature of the Soviet primary school was the involvement of children in speech activities based on the proposed poetic, sketch works, and artistic prose. Younger students learned a lot of poems about nature and the motherland, the lives of children and school friendship; they participated in festive concerts, dramatizations of artistic works. And, of course, the main task of almost every lesson was retelling. Everything that was presented in the textbook, should have been learned through retelling. Creative works such as essays and compositions were offered to children, although not often, on the proposed topic. I should admit that all these tasks were performed by younger students with desire and interest (Vinogradova, 2013).

Again, fly in the ointment. The big problem was (and is now) the organization of educational dialogue as a free, democratic, frank conversation on some important topic for the children, a dialogue where children themselves become the main participants. The ability to realize all these positions provides an explanatory lesson type. Its goals:

- formation of schoolchildren skills to participate in the dialogue;
- development of readiness to build texts-reasoning, to bring evidence, to select essential arguments to confirm their judgments;
- application of the knowledge gained to solve logical problems (textual, graphical).

The value of the explanatory lesson is that the leading role in the process of its construction belongs to the students. The teacher directs this process indirectly. Hence the logic of the deployment of educational dialogue: the presence of different points of view (the teacher can foresee them in advance), the emergence of an intellectual “conflict” and, as its consequence, the organization of the discussion; implementation (under the guidance of a teacher) attempts at convergence of opinions, when children formulate conclusions that are convincing for all.

The value of this type of lesson is that children construct different speech statements and texts on their own, working on their logic, consistency, and explanatory character. In addition, attention should be paid to the pedagogical value of such lessons: it is here that the features of student-centered learning are clearly manifested, everyone has the right to make a mistake, to express his/her own opinion; schoolchildren have the opportunity to prove the validity of their decision.

The relevance of the proposed lesson types is also in the fact that they provide an opportunity to differentiate and individualize the process of primary education.

Pages on history of pedagogy

The works of scientists of the Soviet period of school development about the differentiation of education as a special form of organization of the learning process, taking into account individual differences of students, are well known; these are the works by R. B. Vendrovskaya and N.K. Goncharova, A.A. Kirsanova and M.A. Melnikova, I.M. Osmolovskaya and E.S. Rabunsky, I.E. Unt and others. These works convincingly show what caused the idea of differentiation and individualization of education in different periods of life of Soviet society and school in the postwar years, in the period of the socio-political “thaw”, in the last decades of the twentieth century against the background of major social changes (as cited in Vinogradova, 2013).

7. Conclusion

The importance of a comprehensive discussion of the problems of individualized differentiated learning is clear enough, and educational organization do their best to realize it in the forms of elective courses, classes with in-depth study of individual subjects, groups on future professional activities, etc. I should note that in this case, the primary level of school education actually falls into the zone of low demand for differentiated education as an essential characteristic of education at the present stage of the development of primary school. Unfortunately, today’s teacher “en masse” is not ready to create conditions in the learning process so that failing children can cope with their problems and difficulties, and successful, talented, gifted children do not linger in their development and can move forward at a faster pace.

Staff members of the Laboratory of the Primary Education of the Institute of Content and Methods of Education of the Russian Academy of Education (now the Institute for Strategy of Education Development of the Russian Academy of Education) have developed pedagogical diagnostics, the purpose of which is to establish the causes of the difficulties of learning the Russian language, reading and mathematics of younger schoolchildren with subsequent recommendations to the teacher how to eliminate the failure of learning in primary school. The idea of individualized differentiated education based on pedagogical diagnostics (I would especially emphasize the word “pedagogical”) ensures the overcoming of three “dangerous” problems for primary education. Firstly, pedagogical diagnostics gives the teacher the opportunity not only to ascertain failures in the teaching, but also discloses their reasons; secondly, it warns the desire of some teachers to “glue” a “diagnosis” to the child (“inattentive, not listening ...”), and third, it makes the teacher to answer the question: “how should I change the learning process, so that the failure was eliminated.” It is obvious that such a technique ensures the success of both learning (the position of the student) and teaching (the position of the teacher) (Zhurova, Evdokimova, Kochurova, & Kuznecova, 2014).

Another conceptual idea is associated with differentiated learning (Vinogradova, 2016; Vinogradova, 2017), that is the implementation of the culturological principle of presenting the content of learning. With a mandatory presentation in the subject content of the “core” of education, it is necessary to ensure the creation of a serious, anticipatory knowledge-learning background, which is especially important for successful students. This component of the education content includes a fairly wide range of

encyclopedic information from various areas of the surrounding world, contributing to the development of outlook, in-depth cognitive interest and motivation to learn.

The teaching tools of the Primary School of the 21st Century system expressed the provisions in two forms: special textbook headings (“This is Interesting”, “For the Curious”, “This Wonderful World”, “Journey to the Past”, etc.), as well as practice-oriented workbooks of the correctional-developing orientation. These workbooks offer tasks of varying degrees of complexity that each student can choose according to his/her interest and level of success.

This paper describes only some of the primary education possibilities that improve the quality of teaching and development of a primary school student. However, in our opinion, today they are the most relevant.

Acknowledgments

The study was carried out as part of the State Assignment of the Institute for Strategy of Education Development of the Russian Academy of Education, the project “Didactic support of the formation of functional literacy of schoolchildren in modern conditions”

References

- Davydov, V. V. (1986). *Problemy razvivayushego obucheniya: opyt teoreticheskogo i eksperimentalnogo psikhologicheskogo issledovaniya* [Problems of developmental education: experience of theoretical and experimental psychological research]. Moscow: Pedagogika.
- Elkonin, D. B. (1989). *Izbrannye psikhologicheskie trudy* [Selected psychological works]. Moscow: Pedagogika.
- Federalniy gosudarstvenniy obrazovatelniy standart nachalnogo obshego obrazovaniya [Federal State Educational Standard of Primary General Education] (2011). Moscow: Prosveschenie.
- Federalniy komponent gosudarstvennogo standarta obshego obrazovaniya [Federal component of the state standard of general education] (2004). Moscow.
- Feldshteyn, D. I. (2011). *Glubinnie izmeneniya sovremennogo Detstva I obuslovlennaya imi aktualizaciya psikhologo-pedagogicheskikh problem razvitiya obrazovaniya* [Profound changes of modern Childhood and their actualization of psychological and pedagogical problems of education development]. Moscow.
- Friedman, L. M., (2004). *Psikhologiya detey I podrostkov* [Psychology of kids and adolescents]. Moscow: Izdatelstva Instituta Psikhoterapii.
- Funkcionalnaya gramotnost mladshhego shkolnika* [Functional literacy of primary school students] (2018). Moscow: Ventana-Graf.
- Kovaleva, G. S. (2016). *Rezultaty mezhdunarodnogo issledovaniya TIMSS-2015: 4 klass, analiticheskiy otchet* [Results of the international study TIMSS-2015: 4th grade, analytical report.]. Moscow.
- Vinogradova, N. F. (2013). *Istoriya stanovleniya I razvitiya metodik nachalnogo obrazovaniya* [History of formation and development of methods of primary education]. Moscow-Saint-Petersburg: Nestor-Istoriya.
- Vinogradova, N. F. (2016). Universalnie uchebnie deystviya kak rezultat obucheniya v nachalnoy shkole [Multipurpose learning activities as a result of primary school education]. In *Kniga dlya uchitelya*. Moscow.
- Vinogradova, N. F. (2017). Nachalnaya Shkola XXI veka [Primary school of XXI century]. In *Koncepciya nachalnogo obrazovaniya* (p. 64). Moscow: Ventana-Graf.
- Zhurova, L.E, Evdokimova, A. O., Kochurova E. E., & Kuznecova, M. I. (2014). *Pedagogicheskaya diagnostika. Russkiy Yazik. Matematika: 4 klass* [Pedagogical diagnostics. Russian language. Mathematics: 4th grade]. Moscow: Ventana-Graf.