

**МЕКТЕПКЕ ДЕЙІНГІ, БАСТАУЫШ БІЛІМ БЕРУ,  
АРНАЙЫ ЖӘНЕ ҚОСЫМША БІЛІМ БЕРУ МӘСЕЛЕЛЕРІ  
ПРОБЛЕМЫ ДОШКОЛЬНОГО И НАЧАЛЬНОГО,  
СПЕЦИАЛЬНОГО И ДОПОЛНИТЕЛЬНОГО ОБРАЗОВАНИЯ**

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**FORMATION OF FUNCTIONAL LITERACY OF PRIMARY  
SCHOOLCHILDREN BASED ON DIGITAL TECHNOLOGIES**

*Abstract*

Today's society demands people quickly adapting to rapid developed digital technology in post-modernization globe. Nowadays the digital socium as an purposeful historical rules increasing the inquiries for the education level needs the ready constant learning of working skills by means of most up-to-date technologies and most recent products. Personal functional literacy can be formed through integration of courses at primary schools. Forming the functional literacy among primary school learners is one of most controversial problems that cannot be solved. The functional literacy has been described as students' awareness, skills and abilities used in connection with personal skills and activities.

In this direction, the purpose of our paper is to present the stages and effective methods of forming functional literacy of primary school learners through digital technologies. In the study, the methodology of functional literacy formation during the teaching of science subjects based on digital technologies in primary school was proposed. Through course of our study, theoretical literature review and statistical analysis methods were used. In the practical lessons, the stages of formation of schoolchildren' communicative skills and functional literacy were checked in an experimental form and the results were presented. The outcomes of study can be applied in increasing the functional literacy of school learners through digital technologies by primary school teachers and young methodologists.

**Keywords:** digital technologies, functional literacy, primary schoolchildren, primary school, science subjects.

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**ЦИФРЛЫҚ ТЕХНОЛОГИЯЛАР НЕГІЗІНДЕ БАСТАУЫШ СЫНЫП  
ОҚУШЫЛАРЫНЫҢ ФУНКЦИОНАЛДЫҚ САУАТТЫЛЫҒЫН ҚАЛЫПТАСТЫРУ**

*Аңдатпа*

Қазіргі қоғам постиндустриалды әлемде қарқынды дамып келе жатқан цифрлық технологияларға тез бейімделе алатын адамдарды талап етеді. Қазіргі цифрлық қоғамда объективті тарихи заңдылық – тұлғаның білім деңгейіне қойылатын талаптардың артуы ең озық техникамен және ең заманауи өндіріспен жұмыс істеу дағдыларын үнемі меңгеруге дайын болуды талап етеді. Адамның бойындағы функционалдық сауаттылық бастауыш мектепте пәндер бірлестігінде қалыптасады. Бастауыш мектеп оқушыларының функционалдық сауаттылығын қалыптастыру шешімін таппай отырған өте күрделі мәселелердің бірі. Функционалдық сауаттылық оқушылардың жеке дағдылары мен әрекеттеріне байланысты олар қолданатын білімі, дағдылары мен біліктілігі ретінде сипатталады.

Осы бағытта, зерттеудің мақсаты – цифрлық технологиялар арқылы бастауыш сынып оқушыларының функционалдық сауаттылығын қалыптастыру кезеңдері мен тиімді әдістерін ұсыну. Зерттеуде бастауыш мектепте жаратылыстану пәндерін цифрлық технологиялар негізінде оқыту барысында функционалдық сауаттылықты қалыптастыру әдістемесі ұсынылды. Зерттеу барысында теориялық әдебиеттерге талдау, статистикалық талдау әдістері қолданылды. Практикалық сабақтарда оқушылардың коммуникативті дағдыларын, функционалдық сауаттылығын қалыптастыру кезеңдері эксперимент түсінде тексеріліп нәтижелері ұсынылды. Зерттеу нәтижелерін цифрлық технологиялар арқылы оқушыларының функционалдық сауаттылығын қалыптастыруда бастауыш мектеп мұғалімдеріне және жас әдіскер-ғалымдарға қолдану мүмкіндігі бар.

**Түйін сөздер:** цифрлық технологиялар, функционалдық сауаттылық, бастауыш сынып оқушылары, бастауыш мектеп, жаратылыстану пәндері.

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## ФОРМИРОВАНИЕ ФУНКЦИОНАЛЬНОЙ ГРАМОТНОСТИ МЛАДШИХ ШКОЛЬНИКОВ НА ОСНОВЕ ЦИФРОВЫХ ТЕХНОЛОГИЙ

### Аннотация

Сегодняшнее общество требует людей, способных быстро адаптироваться к быстро развивающимся цифровым технологиям постиндустриального мира. В современном цифровом обществе объективным историческим законом является то, что повышение требований к уровню образования человека требует готовности постоянно осваивать навыки работы с самой передовой техникой и самым современным производством. Функциональная грамотность у человека формируется при объединении предметов в начальной школе. Формирование функциональной грамотности учащихся начальной школы – одна из сложнейших, неразрешимых проблем. Функциональная грамотность определяется как знания навыки и способности обучающихся, используемые в связи с личными навыками и деятельностью.

В этом направлении цель исследования – представить этапы и эффективные методы формирования функциональной грамотности учащихся младших классов посредством цифровых технологий. В исследовании предложена методика формирования функциональной грамотности при преподавании естественнонаучных предметов на основе цифровых технологий в начальной школе. В ходе исследования использовался анализ теоретической литературы и методы статистического анализа. На практических занятиях в форме эксперимента проверялись этапы формирования коммуникативных умений и функциональной грамотность обучающихся и представлены основные результаты. Результат исследовательской работы могут применить учителя начальных классов и молодые методисты при развитии функциональной грамотности учеников с помощью цифровой технологии.

**Ключевые слова:** цифровые технологии, функциональная грамотность, учащиеся младших классов, начальная школа, естественнонаучные предметы.

**Introduction.** Functional literacy is defined as mastery of key competency system in maintaining effective practical applications that acquire soft skills, awareness, skill-based abilities in using results of social adaptation process. Key competencies should be developed through state requirements in formulating educational outcomes. Republican National Strategy for 2012-2016 years considered the functional literacy as core elements of student training. The functional literacy among schoolchildren should cover all necessary conditions [1].

The approaches to acquiring functional literacy are regulated by state programs of Republic of Kazakhstan for 2011-2020 years, too. It is developed through governmental perspectives and strategies through taking the conditions and issues into consideration [2].

The research is devoted to functional literacy development among primary school learners. One of key competencies of for learners of primary schools can be social communicative skills. The subject competencies is developed through mastering specific awareness, abilities throughout the subject. Functional literacy provides personal self-improvement, independent acquisition of awareness, managing information technologies, solving problems, carrying out entrepreneurship and creative works.

The education process helps to build up functional literacy in a person ad writing and reading forms of literacy, scientific literacy, mathematic literacy, computerization literacy, family relations literacy, health improving literacy and legal forming literacy).

As stated by Kemelbekova (2016) ‘*Functional literacy* is ‘personal ability functioning competently and skilfully in all spheres of human activity: work, government, family, law, politics, culture’ [3].

The term ‘functional literacy’ is based on functional (semantic) reading. It assists in extracting and going deeper into information that presented in different forms. They can be textual, speech acts, graphics, illustrated versions, video-clips and others, work with it, interpret, analyze, compare. Without it, other types of functional literacy - mathematical and financial literacy, creative thinking

and global competencies - will be inaccessible to the child, because each of them relies on the basic ability of working with information, and it is functional reading that is important to develop from primary school age.

Buribekova, Zhanatbekova (2014) tried to distinguish among functional literacy motivational aspects, leading activities in creating awareness models in similar situation application, independence in awareness, controlling one's activities, correctional work and understanding one's activities [4, p. 94].

Functional literacy is the basic education of the individual as noted by Bukreeva (2023) [5, p. 131].

Metka Kordigel Aberšek, Maja Kerneža (2022) stated that the notion of functional literacy in digital information has to be started from primary school subjects. It does not develop by itself [6, p. 176]. They should be perceived and acquired through digital technologies by using various aspects of school curriculum. Eskazinova and Arystanbekova (2020) believe that abilities of working with information sources can be manifestation of student functional literacy [7]. We also consider the acquiring life skills, mastering social experiences in every day practical activities can be possible subjects in mastering key educational competencies.

Abdusattarova, Pulatova, Zulpanova and etc. (2023) defined functional literate personality as individual skills formed through using conditions and effective means of up-to-date means while learning needed activities and tasks [8].

*Basic provisions.* Functional literacy is defined as an ability to effectively use knowledge and skills in real-life situations. For primary school students, this means the ability to read, write, count, and use digital tools to solve educational and everyday problems.

*Digital technologies* provide interactive, multimedia, and adaptive learning tools that help primary school students better absorb educational material and develop critical thinking, attention, and independence. For primary school students, a game-based and visual learning format is important, which stimulates interest and motivation. Digital platforms and applications should be safe, accessible, and age-appropriate.

One of the key problems in introducing digital technologies into primary education is *the lack of training of teachers* to work with modern digital resources. Not all teachers have the necessary knowledge and skills to effectively use educational platforms and applications, which reduces the quality of education and limits the potential of digital tools. In addition, some students have limited access to the necessary equipment and a stable Internet connection, especially in rural and sparsely populated areas. This creates inequality in learning opportunities and prevents all children from being fully included in the digital educational environment. Another important limitation is the risk of overloading children with prolonged screen time, which can negatively affect their vision, concentration, and overall health.

*An integrated approach* that combines traditional teaching methods with the use of modern digital technologies. An important condition is the continuous professional development of teachers in the field of digital pedagogy, which will allow them to use new tools in the educational process more confidently and creatively. It is also necessary to create a safe and stimulating educational environment that takes into account the age characteristics of children and minimizes the negative impact of screen time. Active involvement of parents in the educational process helps maintain the interest and motivation of children, and also provides additional support in mastering functional literacy using digital resources.

**Methods and materials.** Literature review was used to define the term 'functional literacy' and ways and models of its development at primary schools. The study has set out both to develop a new model and its validity and reliability through data analysis. The experiment was conducted in three stages with the use of digital platforms and modern technologies. The study group included a total of 32 fourth grade schoolchildren from Karaganda Primary School, Kazakhstan during the 2022-2023 academic course. The aim of experimental practice was developing students' functional literacy through the systematic use of TIMSS and PIRLS as means of digital technologies.

**Results and discussion.** A feature development of schoolchildren' competencies is the completely different principles of constructing tasks in school lessons. Indicators of functional literacy are empirical indicators. Over the past period of time, pedagogical practice has developed a number of recommendations for teachers on the functional literacy development in schoolchildren. When developing functional literacy, we need criterion-based assessment. Every criterion is identified through awareness levels, students' abilities and skills. The criterion of level development is based on three stages. Dita Surwanti, Isti'anatul Hikmah (2019) stated we need complex and sophisticated texts for the improvement of students' functional literacy. It helps to students' language mastery and reading comprehension and other matters to be considered in the success of student functional literacy.

Today, functional literacy of schoolchildren is used to make independent diagnostics on reading and mathematical literacy. They, like many other events, are aimed at achieving the best results of schoolchildren in international studies: TIMSS and PIRLS.

Development of primary school students' functional literacy by using digital technologies is one of the pressing issues in modern educational practice. It is important because of the development of information and digital technologies in all schools. Thereofre, there is a need to enhance and apply these technologies In the formation of key competencies of students. As the functional literacy includes: student awareness, cognitive skills and communicative abilities applied and retained in close interconnection with personal activities, they are usually general cultural, value-semantic, informational work, educational-cognitive skills, communicative activities and personality self-improvement soft skills and competencies. All these skills comprise functional literacy of schoolchildren. All the interpersonal skills, activity qualities can be build up and achieved throughout active consciousness and perceptions of social experiences. 5 main components are universal educational activity based regulatory, interpersonal, cognitive and communicative components. In Table 1, we can see the main components and descriptions of learners of primary school's functional literacy based on digital technologies.

Table 1

*Functional literacy components in primary education*

<i>Components</i>	<i>Content</i>
independence and interpersonal self-consciousness	<ul style="list-style-type: none"> <li>– navigating world activities, assessing situations;</li> <li>– planning and organization of life-goals in maintaining the research activities;</li> <li>– awareness symbols and language of one's nation;</li> </ul>
communicative skills	<ul style="list-style-type: none"> <li>– finding optimal ways in solving discussion with other peoples;</li> <li>– creating positive aspects of social environment;</li> <li>– evaluating desire for self-improvement;</li> </ul>
managing information and technology	<ul style="list-style-type: none"> <li>– ways to update received information;</li> <li>– possession of technical skills like digital cameras, technical visuals;</li> <li>– choose significant guidelines for one's actions;</li> <li>– applying information and telecommunication technologies;</li> <li>– logical validity of actions and actions;</li> <li>– using different social roles according to one's age.</li> </ul>
problem solving skills, intellectual skills	<ul style="list-style-type: none"> <li>– maintaining and promoting healthy lifestyle;</li> <li>–interested in arts and science fields;</li> <li>– compliance with rules for maintaining own safety;</li> <li>– participation in self-development;</li> <li>– perceiving social events and life situations;</li> </ul>
creativity and critical thinking skills	<ul style="list-style-type: none"> <li>– desire to positive personal leadership abilities;</li> <li>– focus on universal and national values in assessing human behavior and etc.</li> </ul>

The functional literacy is understood as a separate skills and competencies formed throughout one's experiences. Dita Surwanti & Isti'anatul Hikmah (2019) stated that the main role is taken by a teacher and he is in central position. He integrated the skills and technologies of digital world to

build up and organize the models of functional literacy [9]. The following figure shows the main components of functional literacy of school learners.

Table 2

*Types of digital technologies in the formation of functional literacy*

communicative tools and technologies	allows formulation of intellectual leadership abilities
problematic technologies	formation of reading and consolidation activities, creative thoughts through discussions of some issues
project technologies	intellectual, organizational, communication and evaluation of individual works
differentiated training	style of interaction between teachers and school learners and main tasks and responsibilities of teacher is assisting the students to accept knowledge
ICT technologies	basis of intellectual skills, such as: analysis and synthesis, comparison and generalization

As we see the interaction between students and teachers need to make use of modern educational technologies in forming functional literacy corresponding to psychological and age level. Being in the center of teaching process the teachers face with a lot of problems that can be solved in teaching process.

Abdusattarova., Pulatova, Zulpanova (2023) distinguished that teaching to read and write in a modern school cannot be limited only to academic goals and everyday life includes goals. Textbooks created on the basis of new programs for primary classes direct students to develop their functional literacy

*Functional literacy*, in the context of primary education, implies the ability and literacy of students to apply their knowledge and skills to successfully solve practical problems. This literacy includes not only traditional reading, writing and arithmetic skills, but also broader competencies such as information literacy, media literacy, digital literacy and critical thinking. In the context of the digitalization of the world, these components of literacy are becoming especially important.

It can be noted that, a particular attention should be paid to the development of digital literacy and creativity, which includes not only the abilities and skills to work with digital devices, but also the abilities of critically evaluating reached information, save and protect personal information and effectively use various digital tools for learning and solving everyday problems.

The practical experiment was designed to ensure individualization of digital education, develop independence, promote their individual skills. It was planned according to 3 stages.

*At the first stage*, necessary information is carried out, familiarization with the concept of ‘functional literacy’. The object, subject, goals, objectives and base of experience were determined, methods and technologies for teaching schoolchildren were selected, participation in webinars on the topic ‘Functional Literacy’ and completion of distance courses on functional literacy. Exploring the capabilities of various digital educational platforms. The experiment was carried out at primary school Lyceum school №66 in Karaganda. The experiment was planned with 4<sup>th</sup> Grade 32 learners of primary schoolers.

*At the second (practical) stage*, the course ‘Working with Information’ is developed on the textbook platform with the aim of developing functional literacy, the most appropriate technologies, tools and teaching methods are selected when creating digital educational resources.

*At the third (implementation) stage*, digital educational resources are created on the TIMSS and PIRLS platforms. New opportunities for digital resources are being explored. A control and diagnostic toolkit is being prepared for monitoring the introducing digital educational resources results into teaching practice.

Laurice Joseph (2020), David Bawden (2001) proposed the best way to target appropriate interventions for children with reading problems is to conduct assessments that lead to appropriate data-based decision-making individual activities [10].

Following them we used TIMSS as in student functional literacy development. The first of such international tests is TIMSS (The Trends in International Mathematics and Science Study). It is an international comparative study of the performance and learning trends of 4th and 8th grade students in mathematics and natural sciences. However, this type of diagnosis includes not only the verification of awareness, soft skills, abilities in specific academic disciplines. We also need assessment level of interests and student motivation, the ability of applying the awareness in real life situations. Every 4 years TIMSS member countries that undergo this study. The structure of TIMSS-diagnostics is developed and updated by an international community of scientists, pedagogues and psychologists. Currently it includes: test achievements with division into thematic blocks; manual-instruction for organizers of testing and special software: surveys for students, parents, teachers. Let's consider an example of one of the test tasks in the block 'Nature awareness' in TIMSS-diagnostics for 4th grade (Fig. 1)

Schoolchildren applied functional literacy skills in project activities, achieving results at various levels. They successfully completed assignments in the subjects 'Mathematics' and 'World around us' through the digital resources. At this stage, the results of implementing a course and digital resources are summed up, the level of achieving the planned results, and appropriate adjustments are made. Main stages of using digital educational resources were systematically developed using 3 main stages (Table 3).

Table 3

*Main stages of using digital educational resources*

<i>Stages</i>	<i>Content</i>
Know	Formulation of the original idea. Assessment of existing digital platform capabilities.
Think	Identification of didactic subgoals. Planning. Presentation of content.
Implement	Creation of images, exercises. Arrangement of materials into a finished module.

Functional literacy is based on meaningful reading. It helps to extract and understand information presented in differentiated forms as we said above. Without it, other types of functional literacy - mathematical and financial literacy, creative thinking and global competencies - will be inaccessible to the child, because each of them relies on ability of working with information, and it is functional reading that is important to develop from primary school age. Bobby Ojose (2011) considers that one of models to account for the problems is the content of mathematics learned in schools is not making citizens mathematically literate or the methods of teaching concepts are not helping them making connections to real-life situations [11, p. 93]. In the following example, the tasks are related to real life situation as counting books at students' homes. As pointed out by Shalashova at all (2018) students realize the need for practical-oriented, competency-based educational texts, the number of which is currently insufficient [12].

The implementation of the task is developed through 3 main stages presented in Table 4. Using 3 stages of online diagnostics of the teacher's competencies, how developed the students' functional literacy and other problem-solving skills are.

Table 4

*Stages of using digital resources*

<i>Stages</i>	<i>Content</i>
I stage	Development of personal profile, study of methodological materials, taking an online advanced courses on developing functional literacy
II stage	Development of several directions. Implementation of program course called 'Working with Information' based on reading literacy.
III stage	Ends with a quest 'I'm going to the goal'. An analogue of testing developed skills in functional literacy. The game is bright, colorful, interesting, and aimed at two basic literacy skills: reading and mathematics. They can be used in extracurricular activities.

The following example of task is taken from TIMSS to develop functional literacy:

Table 5

*Task 1 How often are you engaged with the following things?*

	<i>Every day</i>	<i>Once/twice a month</i>	<i>Never/almost never</i>
Talk with friends	1	2	3
Play sports	1	2	3
Ride a skateboard	1	2	3

About 50 original tasks have been developed specifically for this course with the use of TIMSS and PIRLS platforms. The instructions for the tasks can be read or listened to, which is very convenient. Tasks appear gradually according to the coursebook.

Table 6

*Task 2 – How much do you agree about mathematics?*

*Fill in one answer in each row.*

	agree a lot	agree a little	disagree a lot	disagree a little
USUALLY DO MATHS WELL	1	2	3	4
MATHS IS HARDER FOR ME	1	2	3	4
NOT GOOD AT LEARN THINGS IN MATHEMATICS QUICKLY	1	2	3	4
GOOD AT WORKING OUT MATHEMATICS	1	2	3	4
MY TEACHER TELLS I AM GOOD AT MATHEMATICS	1	2	3	4
MATHS IS HARDER FOR ME THAN OTHER SUBJECTS	1	2	3	4
MATHS MAKES ME CONFUSED	1	2	3	4

The above examples are focused on critical thinking development and functional literacy. Based on outcomes, the teacher receives a special competency card. class assignments begin with an input diagnostic, consisting of a set of cards for all skills in working with information. Of course, it is urgent of going into a digital educational resources deeper as they should not be the only tool for functional literacy development. The tasks need to be focused on development of students' problem solving skills on mathematical tasks.

Some sholars like, Khudyakova M.A., Vlasova I.N., Selkina L.V., Hudyakova A.V., Shustova S.V. (2021) stated that the foundations of functional literacy can be determined by information skills that serve as the basis for the formation of universal competences [13]. Accordingly, Medzhidova M.G., Adieva A.A., Medzhidov M.A., Pakhrutdinova A.A., Djamalova S.A. (2021) also consider functional literacy plays an important and basic role in improving the quality education. It depends on a teacher who owns not only subject, but also meta-subject knowledge and a methodological system capable of gradually forming functional literacy in children [14].

In this connection the teacher needs mastering the main concepts and activities of functional literacy. It can be developed through the use of mastering modern technologies and selection and development of educational tasks and activities aimed at using theoretical knowledge in practical classes. There is a need of specialists in the formation of functional literacy as an individual approach, because the student s might have different levels and knowledge levels. The teacher helps to expand the digital and methodological resources and tries to analyse how to restructure his

methodological work and technologies. Digital technologies can be used by different ways according to the types of activities and tasks.

The given examples of tasks taken from digital resources helped to develop student functional literacy. In the end we conducted grammar tests on using zero forms for 2 groups. In order verifying the experiment results we conducted pre- and post- tests in the functional literacy development. The criteria are:

1. reading skills;
2. problem solving skills;
3. communicative skills;
4. critical-thinking skills.

The testing outcomes can be shown in Figure 1. The tests were carried out through TIMSS to check the student functional literacy development.

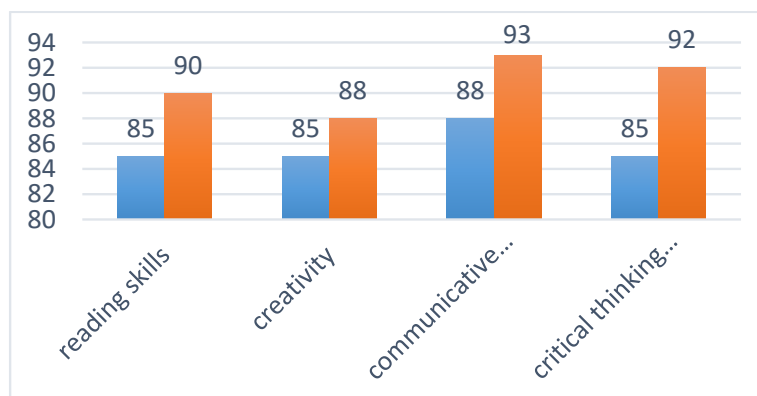


Figure 1. Results on the functional literacy development on using digital technologies

We can observe in Figure 1, the testing results showed that using effective stages and digital resources worked out better results. The result of post-tests are higher from 3% to 7%. Therefore, we set the task of finding digital educational platform - TIMSS would be convenient and easy to use not only for schoolchildren rather than traditional classrooms. The use of digital educational resources is intended to help 4th grade schoolchildren systematize awareness in subjects and gain basic functional literacy.

The successful functional literacy development and the achievement and subject competencies need to carry out conditions, like:

- using productive group work forms;
- focused on the independence development and student responsibility of his activities;
- training the classroom in natural conditions;
- provision of opportunities in gaining experience;
- ensuring the frontal classroom forms transition to the individual implementation of educational process, including interactive innovational activities, designing digital infrastructure of the research technologies.

In general, today's digital technologies, innovational advances influence on all aspects and spheres of the educational process. They can significantly improve and enhance the quality of learning outcomes by providing access to a variety of educational resources, interactive and multimedia materials on supporting a personalized approach to learning. In primary grades of school education, the use of DT helps students develop the skills of searching, analyzing and processing information, which is directly related to the development of their functional literacy.

Therefore, we classified the main aspects of practical implementation of DT in the development of students' functional literacy. These components were used in our practice.

1. *Interactive teaching materials* is an important component of functional literacy which needs the application of digital textbooks, computer applications and digital platforms for independent

work. All these materials enhance the student functional literacy, the skills of self-control, independence and critical understanding of the knowledge gained. Through gaming methods and educational programs, schoolchildren can consolidate and deepen their knowledge in various areas, such as mathematics, reading and grammar.

2. *Distance learning systems*, like: online platforms, video conferences and collaborative platforms are used as an integral part of the educational process. All these technologies and tools, digital resources make the education process possible to organize training at any time, which is especially important in the context of modern mobility and flexibility of teaching process.

3. *Effective methods and approaches* to the implementation of digital technologies were digital technologies. Among them there is project activities that can be related to the creation of presentations, research works, the creation of multimedia products. This contributed to students' development of functional literacy in working with virtual texts, video images directed to the development of their critical thinking, the ability of working in teams and solving joint problems.

4. The use of digital games and simulators was an effective tool for developing functional literacy. They also stimulates students' classroom activity, helped them to learn educational materials in game formats and to develop their attention, motivation, critical thinking, memorization and imagination.

5. One of the main parts of informatization of education is *application of information communication technologies* in educational disciplines. It means a change in priorities in setting educational goals for school students. Today's students must be a functionally literate personality with critical thinking skills, the ability to navigate an unfamiliar situations which form their functional literacy.

Therefore, we can draw following recommendations and conclusions:

- as science, today's technology develops, the student awareness of the subject requirements grow and learning outcomes need to be reconsidered. The range of them expanded, because the qualitative characteristics can be formed through;
- personal functional literacy through the indicators of students' abilities in adapting to the conditions of society.
- functional literacy develops when special educational environment is created, not only in classrooms, but also outside classrooms.

In conclusion, we refer functional literacy to personal ability in public relationships and abilities for adapting to changing conditions of world technologies.

**Conclusions.** The main concepts of functional literacy is educating a personal spirit of goodwill that ensures a communication culture. Functional literacy of individual are initiative forms of abilities in thinking creatively and finding innovative solutions and willingness in learning throughout life. Every functional skill is formed in positive school environment. The development of functional literacy skills and their outcomes is mastery of key competencies system. They include: problem solving skills, self-development, informative and communicative skills.

Functional literacy is concluded as personal ability in functioning competently and skillfully in all spheres of human activity. Today's school graduate must be a functionally literate person with probabilistic thinking, the ability to navigate an unfamiliar situation. Thus, we need to introduce innovative methods and new pedagogical technologies into the educational process, designed to ensure individualization of training and education, develop student independence, and also promote the preservation and strengthening of health. Functional literacy is a set of skills, key competencies necessary for a schoolchild living happily in the future world. The processes of digital education do not only develop schoolchildren by themselves, but they also contribute to certain types of activity formation.

The creation and use of digital educational resources is shaped and practiced experience. The development of materials for digital resources is simple enough that a teacher can easily implementing in teaching process. This experience can be used as a guide to own activities based on digital resources to develop functional accuracy, skills and abilities.

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