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Revista Tempos e Espaços em Educação, vol. 15, núm. 34, e17157, 2022

Universidade Federal de Sergipe

Disponível em: <https://www.redalyc.org/articulo.oa?id=570272314042>

DOI: <https://doi.org/10.20952/revtee.v15i34.17157>

Revista Tempos e Espaços em Educação 2022



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Publicação Contínua

# Features of the development of primary education in the context of the impact of COVID-19


Características do desenvolvimento do ensino primário no contexto do impacto da COVID-19

Características del desarrollo de la educación primaria en el contexto del impacto del COVID-19

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Revista Tempos e Espaços em Educação,  
vol. 15, núm. 34, e17157, 2022

Universidade Federal de Sergipe

Recepción: 11 Noviembre 2021  
Aprobación: 10 Febrero 2022  
Publicación: 25 Marzo 2022

DOI: <https://doi.org/10.20952/revtee.v15i34.17157>

**Abstract:** The main purpose of the article is to study the features of the development of primary education under the influence of COVID-19. Competently oriented primary education is a response to the challenges of modern society, to the requirements of new information progress. The crisis caused by a dangerous new coronavirus required urgent measures to reduce the risks of the spread of infection in various areas of people's lives and activities. In the field of primary education, an urgent transfer of the educational process to a distance form using e-learning technologies was chosen as such a measure. Such an attitude, in principle, corresponds to the current level of accessibility of digital technologies for the majority of the world's population. In addition, the vast majority of educational institutions, in accordance with accreditation requirements, must have an Internet connection, which is the basic criterion for assessing the ability of a school to work remotely using digital technologies. As a result of the study, the main prerequisites for the development of primary education under the impact of COVID-19 were identified.

**Keywords:** E-learning technologies, Pedagogy, Primary education, Schools, The impact of COVID-19.

**Resumo:** O objetivo principal do artigo é estudar as características do desenvolvimento da educação primária sob a influência do COVID-19. A educação primária competentemente orientada é uma resposta aos desafios da sociedade moderna, às exigências do novo progresso da informação. A crise causada por um perigoso novo coronavírus exigiu medidas urgentes para reduzir os riscos de propagação da infecção em várias áreas da vida e das atividades das pessoas. No âmbito do ensino básico, optou-se como medida urgente pela transferência do processo educativo para a modalidade a distância com recurso a tecnologias de e-learning. Tal atitude, em princípio, corresponde ao atual nível de acessibilidade das tecnologias digitais para a maioria da população mundial. Além disso, a grande maioria das instituições de ensino, de acordo com os requisitos de credenciamento, deve ter uma conexão com a Internet, que é o critério básico para avaliar a capacidade de uma escola trabalhar remotamente usando tecnologias digitais. Como resultado do estudo, foram identificados os principais pré-requisitos para o desenvolvimento do ensino fundamental sob o impacto da COVID-19.

**Palavras-chave:** Educação primária, Escolas, Impacto da COVID-19, Pedagogia, Tecnologias de e-learning.

**Resumen:** El objetivo principal del artículo es estudiar las características del desarrollo de la educación primaria bajo la influencia de COVID-19. La educación primaria orientada de manera competente es una respuesta a los desafíos de la sociedad moderna, a los requisitos del nuevo progreso de la información. La crisis provocada por un nuevo y peligroso coronavirus requirió medidas urgentes para reducir los riesgos de propagación de la infección en diversas áreas de la vida y actividades de las personas. En el ámbito de la educación primaria, se eligió como medida urgente la transferencia del proceso educativo a una modalidad a distancia utilizando tecnologías de e-learning. Tal actitud, en principio, corresponde al nivel actual de accesibilidad de las tecnologías digitales para la mayoría de la población mundial. Además, la gran mayoría de las instituciones educativas, de acuerdo con los requisitos de acreditación, deben tener una conexión a Internet, que es el criterio básico para evaluar la capacidad de una escuela para trabajar de forma remota utilizando tecnologías digitales. Como resultado del estudio se identificaron los principales prerrequisitos para el desarrollo de la educación primaria bajo el impacto del COVID-19.

**Palabras clave:** Educación primaria, El impacto de COVID-19, Escuelas, Pedagogía, Tecnologías de aprendizaje electrónico.

## INTRODUCTION

Primary education is the first step in a person's systematic knowledge of the world around him. The uniqueness of primary education lies in the fact that it constitutes an integral system of training duration, multi-subject and systematic nature. Education is undergoing reform every year: concepts, laws, standards, teaching and upbringing methods, legal framework, terms and content of education are changing.

Among the significant amount of social and economic losses to society associated with the closure of general primary education institutions due to the pandemic, experts from the United Nations Educational, Scientific and Cultural Organization (UNESCO) identify (Oreshkina, Lukashenko, Samokhin, Sergeeva, 2021):

- increased pressure on institutions of secondary general education, which remained open;
- problems of ensuring the objectivity of the intermediate and final control of students' knowledge;
- unpreparedness of the majority of parents to support forms of distance and home education;
- high economic losses in labor productivity due to the combination of childcare and telecommuting;
- stress manifestations among students, teachers and parents;
- problems of care and upbringing of children from dysfunctional families;
- an increase in the likelihood of risks of the use of psychotropic drugs and antisocial behavior of adolescents;
- increasing the outflow of children and youth from schools;
- an increase in the exploitation of child labor, the spread of violence among girls and young women, a surge in teenage pregnancies.

The risk of not returning to school for children of primary and secondary school age who have been out of school for a long period is now extremely high.

Its minimization will be achieved through active public policy, for example, communication campaigns aimed at vulnerable categories of students at risk, including families and society. It is clear that each country has paid and will pay its own price for school closures, but the sign of a civilized world is to ensure equal access to education, the continuity of education and the fulfillment of educational goals based on the provisions of the right to education. At the same time, we should also mention countries that had their own strategies to counter the spread of COVID-19 and, being guided by the fact that the virus affects children the least, did not resort to closing schools (Taiwan, Sweden).

On a global scale, UNESCO scientists are most actively involved in the problem of forced distance learning. They note that the majority of applicants for higher education at all levels have actually become isolated in the cities, it is the cities that have taken the front line in

the fight against new challenges and problems. One of the methods is the formation of so-called "Learning cities", that is, cities that effectively mobilize resources for the dissemination of education, rethink learning in households and public societies, use modern technologies for learning in the online space, with the help of which the city has the potential to empowerment. and social inclusion, economic development, cultural prosperity and sustainable development (Thomas, Abolade, Junaid, 2004)

Within the framework of the concept of Learning cities, it is important to provide not only formal, but also non-formal education for everyone. Those cities that have integrated programs with the provision of non-formal education through collaboration with local organizations and firms have increased the potential for reshaping cities into "learning cities". An example of such a collaboration among local government structures or with the involvement of other private organizations was the opening of free courses for students and schoolchildren or the free use of online library catalogs. In addition, it is the development of such online or digital programs that aims to change people's behavior and the way they think, which has become a priority with the rapid spread of the pandemic.

Also, during the pandemic restrictions, school teachers and higher education teachers who are faced with the problems of adapting to digital technologies in teaching, reducing employment, and reducing wages require protection (Rogalskaya, 2008).

According to foreign scientists, the structural beacons to support teachers are as follows: maintaining employment and wages; security and welfare, health care; involvement in the development of educational activities in response to the challenges of COVID-19; providing adequate professional support, professional development and training; establishing justice and providing assistance to educators, maintaining their socio-emotional competence.

The inclusion of distance learning in the world education system raised the question not only of introducing new information technologies in education into pedagogical practice, but also of changing and designing the parameters of a new educational environment - transformable within the framework of distance learning, and significantly different from the traditional, familiar educational environment of the school (Beauchamp, 2004)

The educational environment (educational space) can be defined as a part of the social space in which there are those elements of the surrounding reality that motivate the process of cognition, create conditions for cognition, and allow evaluating the results of cognition. Directly designing these elements is the task of the teacher, since the educational environment is an important condition for the educational process, and the effectiveness of the organization of training depends on its characteristics (saturation, consistency, interactivity, etc.).

In the context of the need for distance learning, it became necessary to clarify and model the characteristics of the educational environment of a new format, which brings to the fore the problem

of comparative analysis of the educational environment in terms of distance learning and in traditional terms. The educational environment in a modern school is formed both artificially and with a given direction vector, under the targeted influence of management subjects, and in the process of spontaneous self-organization. This process of formation, development and change in the educational environment is twofold, due to the fact that it is impossible to single out individual components in it (Smith, Hardman, Higgins, 2006)

The modern educational environment at school is a system of components that includes a number of subsystems (Saiko, 2004):

1. The material and technical subsystem, consisting, in particular, of the school building, various equipment, teaching aids. The material and technical subsystem includes, among other things, the equipment of the medical office, dining room, sports and assembly halls.
2. Organizational subsystem, implying the formal organization of the school.
3. Socio-psychological subsystem, which includes the structure of social informal relationships in study groups (classes) and teaching staff.
4. Technological subsystem, which is a set of educational, educational, diagnostic technologies.
5. The management subsystem, which includes the subjects of management within the school (for example, the director, his deputies, heads of methodological associations).
6. Aesthetic subsystem, including the design of the school premises and their ergonomic properties.

The purpose of primary education is the comprehensive development of the child, his talents, abilities, competencies and cross-cutting skills in accordance with age and individual psychophysiological characteristics and needs, the formation of values, the development of independence, creativity and curiosity.

Consequently, the basic theoretical provisions for constructing content were the implementation of the principle of ditinocentrism in all its dimensions and activity approach. The implementation of these well-known provisions at the regulatory and applied level was quite difficult, because it was necessary to take into account not only the actual needs of the modern child, but also lay the potential for its future development, readiness to continue education in a basic school.

The main characteristics of the educational environment, as part of the social and material space, are the following (Oreshkina, Lukashenko, Samokhin, Sergeeva, 2021):

1. Saturation, which can be defined as a kind of concentration of means and methods of teaching, as well as subjects of interaction in the educational environment. In the educational environment, this is the entire scope of opportunities that is provided to the student, didactic material, people with whom he can interact in the learning process.
2. Interactivity, which can be defined as the sensitivity of the environment to external influences, that is, its "ability" to quickly

change to the needs, goals, needs of students. The interactive educational environment is responsive to external influences, its parameters can be easily transformed based on a change in the goal and direction of learning. For example, an interactive educational environment can be easily changed based on the purpose of the lesson - theoretical or practical (for example, a special case is a change in the preparation of equipment for laboratory work by a chemistry teacher).

3. Variability, which can be defined as the possibility of changing the educational environment to the individual needs of the student, the characteristics of the subject, the objectives of the lesson. Variability is understood as a variety of object-spatial and social characteristics of the educational environment (for example, within a school, this is the presence of different elements: school classes, a gym, a school museum, laboratories, an assembly hall, etc.). A change in the social characteristics of the educational environment is a change in the composition of those persons with whom the student communicates. For example, this is an invitation to an educational organization for people of various professions as part of career guidance classes.

4. The interaction of the subjects of the educational process, which in the modern educational paradigm is understood as a subject-subject interaction, that is, the child acts as a full-fledged subject of the educational process, and not an object to which the "teaching effort" is directed. With regard to the educational environment, this implies the ability of the student to form the educational environment to a certain extent, to design its individual characteristics, based on the needs and goals of learning.

5. Coherence (consistency) of individual characteristics of the educational environment with the learning objectives, educational needs of students ensures the integrity of the educational environment and its integration with the current requirements of society. This characteristic is less amenable to influence through a change in one parameter of the educational environment, and as a rule, the formation of a coherent educational environment requires a long time and purposeful actions.

6. The breadth of the educational environment characterizes the opportunities that the environment provides to students. The educational environment of the modern school as a whole is quite wide precisely due to the use of information and distance technologies, for example, interactive whiteboards, virtual tours, etc.).

Thus, designing an important characteristic of the modern educational environment, which the process of transforming the environment is currently aimed at, is the spiritual disposition and focus on each other of the subjects of the educational process (parents, students, teachers, school administration) in order to achieve common goals, in particular, high quality education, harmonization of relations, personal development.



## METHODOLOGY

The main purpose of the article is to study the features of the development of primary education under the influence of COVID-19. For this, a number of methods were applied, which form the research methodology. The study was carried out using the following theoretical methods: systems analysis and synthesis, induction and deduction, comparison, classification, generalization and systematization, idealization and abstraction.

## RESULTS AND DISCUSSION

Modern problems of education have not gone beyond the limits of the topics that worried the minds of people in times long gone from us. Mankind is still interested in the issues of the purpose of the education system in society, the goals and objectives for its practical implementation, the content, forms, methods and models of educational activities. In moments of the most complex socio-cultural changes, the question of changing educational paradigms was raised with enviable constancy.

Despite the fact that in the historical experience of reforming in the field of primary education there were three different organizational models, at the end of the 20th century, he was all questioned. Instead of reproducing the corresponding characteristics of human potential, the ideologists of the primary school reforms put forward the appointment of the education system as a service sector that ensures the free development of the individual.

This formulation of the problem is not accidental. It fully fits into the concept of the ideological justification and moral justification of the globalization of socio-political and economic processes throughout the world, as it allows transnational corporations to overcome the protective systems of countries that ensure the sovereignty of national-state interests. To solve this problem, it is enough to place at the center of the discussed problems of school development not its reproduction of the qualitative characteristics of the rising generations of a particular society, but its function to meet the needs of an individual "atomized" person. This allows, from the standpoint of his individual interests, to criticize almost all aspects of educational policy and, under the banner of "humanization", to put into practice decisions that atomize the social environment. That is why at the end of the XX century, in almost all developed countries of the world, the idea of a crisis in education has become dominant. A characteristic feature that unites the content of recently published works on the problems of education is the recognition of the dependence of education on the general situation in the social development of the countries of the world (Prokhorova, Sedykh, 2016).

The main goal of education was the comprehensive development of a person as a person and the highest value of society, the



development of his talents, mental and physical abilities, the education of high moral qualities, the formation of citizens capable of conscious public choice, enrichment on this basis of the intellectual, creative, cultural potential of the people of the educational level people; providing the national economy with qualified specialists. This led to the need to create such an educational environment that would provide each student with the opportunity to identify and develop their abilities, to become an active subject of life.

Today, there are six types of schools in the primary education system (Bingimlas, 2009):

1. Traditional school. This type of school is aimed at the transfer of ready-made knowledge. Each subject is assigned a certain number of hours. Such a school reproduces, on the whole, the empirical type of thinking.

2. Specialized school (with in-depth study of one or a set of subjects). This type of school is aimed at an in-depth study of a subject (for example, one or more languages, mathematics, history, literature, etc.). More often this is achieved by increasing the number of exercises and study hours allocated in the curriculum for a more detailed study of the material.

3. Innovative (author's) school. This type of school is based on author's developments, the use of individual pedagogical technologies, new methods and teaching aids.

4. A school focused on one or more new educational systems (Waldorf pedagogical technology, technology of self-development by M. Montessori and others).

5. School of developing type (Elkonin D. B., Davydov V. V., Dusavitsky O. K.). The goal is to overcome the crisis of the transition of younger students to the main school, the elimination of concentricity in education, the development of theoretical thinking and the imagination of students.

6. Educational complex "Preschool educational institution - general educational institution".

The new content of education based on the formation of competencies necessary for successful self-realization in modern society in younger students (Wall, Higgins, Smith, 2005):

1. Fluency in the state language implies the ability to express one's own opinions orally and in writing, clearly and reasonably explain the facts, readiness to use the Ukrainian language in various life situations.

2. The ability to communicate in the native (if different from the state) and foreign languages, which involves the active use of the native language in various communicative and life situations, in particular in everyday life, the educational process, and cultural life.

3. Mathematical competence, which involves the identification of simple mathematical dependencies in the surrounding world, modeling processes and situations using mathematical relationships and measurements.

4. Competencies in the field of natural sciences, engineering and technology, involve the formation of the ability to search for and

propose new ideas, independently observe, investigate, formulate assumptions and draw conclusions based on the experiments.

5. Innovativeness, which implies the desire for new ideas, the initiation of changes in the close environment (class, school, community, etc.), the formation of knowledge, skills, attitudes that ensure the further ability to successfully study, conduct a professional one.

6. Ecological competence, which implies awareness of the need to comply with the rules of environmental behavior, rational use of natural resources, understanding the importance of nature conservation for the further development of society.

7. Information and communication competence, which involves mastering the basics of digital literacy for development and communication, the ability to safely use the means of information and communication competence in learning and other life situations.

8. Lifelong learning involves mastering the skills and abilities necessary for further education, organizing one's own educational environment, and obtaining new information.

9. Civil and social competencies associated with the ideas of democracy, justice, equality, human rights, well-being and a healthy lifestyle, awareness of equal rights and opportunities.

10. Cultural competence, involving involvement in various types of artistic creativity (fine, musical and other types of art) through the disclosure and development of natural abilities, creative expression of the individual.

11. Entrepreneurship and financial literacy, involving initiative, willingness to take responsibility for their own decisions, the ability to organize their activities to achieve goals.

The modern format of education is acquiring new scientific and theoretical concepts that reflect the unique features of reality. Student-centered learning, individualization in the educational process, the creation of educational trajectories, the differentiation of educational activities, the formation of motivational approaches to learning, the promotion of self-development of students - these are the principles that are being actively implemented in the educational space. The circumstances of the pandemic in which the world finds itself require new and special forms to implement these principles. The development of a modern information and educational space is designed to ensure the organization of the educational process with the help of information and communication technologies in full-time, distance and mixed formats. Computer technologies, Internet resources, digital devices, Web 2.0 technologies, distance learning formats and technologies are being actively introduced into the education system. Applicants of different levels of education have significantly improved their digital competencies and are actively using both new computer programs and new computer equipment.

One of the important factors is the appropriate use of digital skills in the formation of other life competencies, in particular, the formation of the communicative competence of primary school students as a component of general cultural literacy. Modern students

should improve their own language knowledge and skills not only in a familiar format, now unusually called “face-to-face format”, “live learning format” and “offline learning”. The conditions of the pandemic force periodically and for longer or shorter periods this educational process to be carried out in a format that is often referred to by such terms as “remote”, “online”, “blended” (Odigie, 2012)

In this study, we will focus on some information technologies that allow users to create and distribute their own content on the World Wide Web - the so-called Web 2.0 technologies: sites; video hosting and video storage services; online courses and massive online courses. The site, as a complex of linked pages, has been operating since the beginning of the introduction of Internet technologies. Authors and founders of sites focus on self-published content (content) or allowing publishing by visitors or registered users. For the formation of language competence, we can distinguish the following types of sites: sites (sites with a structured encyclopedic structure), dictionary sites (sites with thematic or industry terms and translations of these terms), information and educational sites, sites with narrowly focused content (literary, study).

Video hosting and video storage services are a rapidly developing technology that provides virtually unlimited opportunities for displaying videos. We single out the following services: broadcasting or live broadcasting, hosting and storage of video materials with the possibility of classification through channels. Online courses are a very rapidly developing and diverse technology (Markova, Sedykh, Tsyplakova, Polunin, 2018).

The simplest way of such technology can be defined in two categories. Online courses - participation in them requires compliance with certain conditions: registration, clear deadlines for reviewing text or other material, participation of other students or participants, deadlines for completing the course, requirements for evaluating learning outcomes. Another category is massive online courses: they have educational content (content) with which users can get acquainted without certain restrictions: individually, at a convenient time, with self-assessment or mutual assessment. While there are many diverse offerings on the Internet 2.0. for the formation of speech competence, it is necessary to understand well what the content of training or, as it is now commonly called, what “content” of a particular resource. It should be understood that the content of the resource meets the requirements that modern society defines today, or the content of the resource meets new educational standards (Sukhodimtseva, Sergeeva, Lukashenko, Pyankov, 2021).

Numerous studies claim that modern children of the 21st century are very different from their predecessors, because they grow up in a new, informational environment that becomes accessible and natural for them. Since it is difficult to captivate for primary school students with bright printed pictures and toys, various online programs are being created for this purpose, which not only contribute to the comprehensive development of children, but also arouse interest and positive emotions. Their use in for primary school education

institutions is necessary, because they make the educational process innovative, they can solve several educational problems at once, and be used as a “surprise moment” in the classroom. Each online program has a different direction, different tasks, difficulty levels, age restrictions. We have created a classification of online learning programs for primary school students (Table 1).

**Table 1**

Classification of online learning programs for primary school students

Nº	Classification	Characteristic
1	Teaching logical thinking	Code Org is a training program designed to organize classes in logic, the development of thinking, starting from the age of 4 years. The environment is arranged in such a way that users (children or adults) independently and under the supervision of experienced users plan and conduct their own training or create new media products in the form of video, audio materials or simple plot computer games or programs with a sequence of algorithms (Code Org). DAISY is an app for the youngest. It teaches the basics of programming logic in a way that even kindergarten kids can understand. Children use the building blocks to animate Daisy the dinosaur
2	Learning the basics of programming	SCRATCH Jr is a free educational program that provides children aged 5 to 8 with a basic knowledge of coding and programming. This application has the ability to exchange data and products with other devices and media. While educators may be bothered or children can handle the challenges of this software, it is an accessible and understandable program. (University of Massachusetts) KODABLE is a game that helps a child, on the one hand, to learn basic programming skills, on the other hand, to lay the foundations of critical thinking, to teach the sequence of actions. Designed for children from 5 to 8 years old. LIGHTBOT is a game that teaches the basic skills of process organization and algorithmization. The gameplay is extremely concise: nothing distracts the young gamer from thinking about the code. This is one of the easiest ways to start learning to code (BrainBasket Foundation).
3	Comprehensive development	Study-smile is a site for children from 2 to 10 years old, where children get their first knowledge in a fun and understandable way, and parents get valuable recommendations on teaching children, as well as ready-made training programs for different ages.

The failure of the traditional school, when all students acquire a standard set of knowledge with the help of a teacher, to meet the needs of modern society leads to the search for alternative models, the key characteristics of which should be (Natalia, Veronika, Nataliia, Iryna, 2020):

- using the individual learning experience of each child;
- an integrated approach to the organization of educational material;
- the development of conceptual thinking, and not a superficial acquaintance with facts and processes;
- providing a variety of sources of knowledge (textbooks, libraries, websites, expert advice);
- organization of joint group training;
- the acquisition of authentic knowledge in the context of use;
- combination of forms of classroom and extracurricular activities.

Today, in modern extreme conditions during quarantine, interactive distance learning methods are gaining popularity in the world, which are based on targeted and controlled intensive independent work of a student who can study in a convenient place, according to an agreed schedule with teachers and under the guidance of experienced teachers.

Before the transition to distance learning, teachers used online educational platforms regularly or occasionally. They mainly turned to online platforms when preparing students for the Olympiads and for doing homework. During the transition of schools to distance learning, the proportion of those who use online resources in their work has increased.

After the transition to distance learning, popular platforms could not withstand such a load and hung up. At that moment, teachers had to resort to the help of e-mail, social networks: VK, WhatsApp. Classes were most often built on the Skype and Zoom platforms. This is a Microsoft telecommunications tool that allows multiple people to remotely interact in real time.

The main problems faced by teachers in the process of conducting distance learning. Teachers who conducted remote classes named the following among the most pressing problems:

- interruptions in the work of video platforms due to overload. This problem was most relevant at the beginning of the transition of schools to distance learning and affected not only video communication, but also other educational services;
- difficulty in connecting all children to the videoconference;
- children's lack of the ability to independently connect to video lessons.
- Parents' complaints about learning overload. Changing the usual practices of teaching and working with children is stressful for all participants in the educational process. Teachers believe that their workload has increased with the transition of schools to distance learning, and the workload on children has also increased. This may be due, first of all, to the fact that teachers had to quickly master new learning formats, now they need to prepare for classes in a different way, the usual practices of conducting lessons and interacting with



school colleagues, students and parents have been violated. Not all of them know and are able to use all the opportunities provided by educational platforms and various digital services that can help the teacher in his work.

But despite the shortcomings, this form of education has a number of advantages (Ambra, Ferraro, Girardi, Iavarone, 2020):

1) for students:

- effectively use educational and methodical literature and materials; (thanks to electronic libraries)

- acquire knowledge;

- develop problem-investigative thinking;

- expand the possibilities of self-control of the acquired knowledge;

2) for teachers:

- promptly update educational and methodological literature;

- introduce modular learning technologies;

- use simulation training technologies;

- to expand the possibilities of control of students' knowledge.

Innovative activity is specific and quite complex, which requires special knowledge, skills and abilities. The introduction of innovations is impossible without a teacher-researcher with systemic thinking and creative abilities. Innovative teachers of this type are called teachers of the initiative direction, they are characterized by a clear motivation for innovative activity and the ability not only to be involved in innovative processes, but also to be an initiator (Tsang, 2020).

The fundamental novelty introduced by the computer into the educational process is interactivity, which makes it possible to develop active forms of learning. It is this new quality that makes it possible to hope for an effective, really useful expansion of the sector of independent study of students.

## CONCLUSION

The progressive development of all types of activities in society requires decisiveness in the modernization of education. The system of primary school education has been influenced by significant changes in the restructuring of the subject and developmental environment in primary school institutions, and despite this, it still needs new natural and accessible solutions in the methods of teaching children. Since the initial concepts are formed precisely in childhood, it is therefore impossible to lose sight of this period of a person's life. The software is necessary to ensure the gradual acquisition of knowledge in a specific educational line. If we talk about their use in the institution of primary school education, then they are certainly important, because they give children initial, theoretical knowledge, and as a result - high-quality practical skills.

Thus, the optimization of the learning process in primary school in the context of a pandemic and its consequences involves new organizational and managerial decisions based on a comprehensive consideration of the laws and principles of the educational process,

modern forms and methods, features, internal and external conditions in order to achieve its maximum efficiency.

## REFERENCES

- Ambra, F., Ferraro, F. Girardi, F. & Iavarone, M. (2020) Towards a teaching that reduces the distance: First results of a survey of the effects of distance learning on secondary school students. *Excell. Innov. Teach. Learn.*
- Beauchamp, G. (2004) Teacher use of the interactive whiteboard in primary schools: Towards an effective transition framework. *Technology, Pedagogy and Education*, 3(3), 337-348, <http://dx.doi.org/10.1080/14759390400200189>
- Bingimlas, K. (2009). Barriers to the successful integration of ICT in teaching-learning environments: A review of the literature. *Eurasia Journal of Mathematics, Science & Technology Education*, 5(3), 235-245.
- Markova, S.M., Sedykh, E.P., Tsyplakova, S.A., & Polunin, V.Y. (2018). Perspective trends of development of professional pedagogics as a science. *Advances in Intelligent Systems and Computing*, 622, 129-135.
- Natalia, S., Veronika, D., Nataliia, B., & Iryna, H. (2020). Formation of professional competencies of primary school teachers using ICT. *Revista Tempos e Espaços em Educação*, 13(32), 1-17. <https://doi.org/10.20952/revtee.v13i32.14965>
- Odigie, V. (2012) A qualitative early childhood: strategies for development in Nigeria. A paper presented at an educational summit organized by six south-south states in Nigeria at government house Port Harcourt with the theme "Empowering all through quality education".
- Oreshkina, A. K., Lukashenko, D. V., Samokhin, I. S., & Sergeeva, M. G. (2021). Digital educational environment as a factor of developing teacher's professional reflection. *Revista Tempos e Espaços em Educação*, 14(33), e16166. <https://doi.org/10.20952/revtee.v14i33.16166>
- Prokhorova, M.P., & Sedykh, E.P. (2016). Designing an individual educational route for a bachelor in the process of mastering managerial disciplines. *Azimuth of scientific research: Pedagogy and Psychology*, 3(16), 124-127.
- Rogalskaya I. P. (2008) Socialization of representatives in school childhood: essence, specificity, accompaniment. Kyiv: Millennium.
- Saiko, N. O. (2004) Professional-pedagogical preparation of future caregivers for socialization of preschool children, Doctoral dissertation, Institute of Pedagogy and Psychology of Vocational Education of APS of Ukraine, Kyiv.
- Smith, F., Hardman, F., Higgins, S. (2006) The impact of interactive whiteboards on teacher-pupil interaction in the National Literacy

- and Numeracy Strategies. *British Educational Research Journal*, 32(3), pp.443-457, <http://dx.doi.org/10.1080/01411920600635452>
- Sukhodimtseva, A., Sergeeva, M., Lukashenko, D., & Pyankov, M. (2021). The methodology of the creation of a flowchart of teacher professional development programme in functional literacy aspect. *Revista Tempos e Espaços em Educação*, 14(33), e15525. <https://doi.org/10.20952/revtee.v14i33.15525>
- Thomas, K. A., Abolade, J. O., & Junaid, M. I. (2004) Providing for out-of-school and street children in the UBE programme. *UBE Forum: A Journal of Basic Education in Nigeria*, 1(1), 80.
- Tsang, A. (2020). The value of a semi-formal peer mentorship program for first-year students' studies, socialization and adaptation. *Active Learning in Higher Education*, 1, 1-6. <http://doi.org/10.1177/1469787420945212>
- Wall, K., Higgins S., & Smith, H. (2005) The visual helps me understand the complicated things: Pupil views of teaching and learning with interactive whiteboards. *British Journal of Educational Technology*, 36(5), 851-867. <http://dx.doi.org/10.1111/j.1467-8535.2005.00508.x>

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### Información adicional

*How to cite:* Kryshchanovych, S., Sych, Y., Mashtakova, N., & Mordovtseva, N. (2022). Features of the development of primary education in the context of the impact of COVID-19. *Revista Tempos e Espaços em Educação*, 15(34), e17157. <http://dx.doi.org/10.20952/revtee.v15i34.17157>

*Authors' Contributions:* Kryshchanovych, S.: conception and design, acquisition of data, analysis and interpretation of data, drafting the article, critical review of important intellectual content; Sych, Y.: conception and design, acquisition of data, analysis and interpretation of data, drafting the article, critical review of important intellectual content; Mashtakova, N.: conception and

design, acquisition of data, analysis and interpretation of data, drafting the article, critical review of important intellectual content; Mordovtseva, N.: conception and design, acquisition of data, analysis and interpretation of data, drafting the article, critical review of important intellectual content. All authors have read and approved the final version of the manuscript.