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Philosophical discourse of cognitive meanings of education

The article considers education as a system that plays an important role in the development of the whole society. An attempt is made to systematize the main characteristic features of the education system, as well as its teaching methods in each historical period of the development of civilization. Thus, the models of an educated person, characteristic of each historical stage, are determined. Within the framework of the topic under study, the modern education system is also considered, the main principles of which are openness, continuity, humanization, its national orientation. However, it should be noted that in modern realities, given the spread of the pandemic caused by the coronavirus infection, the education system has undergone significant changes. It was transformed into a new distance learning format, while retaining its content and essence. In the process of adapting education to the new prevailing conditions, both positive and negative aspects of this transition are identified.

Keywords: education, educational program, evolution of education, model of an educated person, lifelong education, traditional form of education, non-traditional form of education, IT technologies in education, distance learning technologies, online learning format.

Introduction

The future of each country depends on many areas of its life. One of these is the education system. This is confirmed by the fact that the majority of the population of the developed countries of the world, in the distribution of life values, gives preference to education [1; 22].

Education, as a process that forms a common understanding, an idea of the world, has deep roots. His ideals in each era are special in their own way. For example, in the era of Antiquity, people were looking for answers to the mysteries of the Cosmos and the universe as a whole. The Middle Ages are characterized by three grand socio-cultural organizations: the Church, the Empire, the University. The ideal of the Renaissance is humanitarian universalism, and the teachings focused on life practice can be considered the ideal of Modern education [2]. As for the modern understanding of education, we can say that education, as a process, is aimed at mastering not only a particular, but also a general way of cognitive activity.

This study aims to determine the main trends of the formation of educational systems in the aspects of the development of society and philosophical thought.

Accomplishing this aim demanded the solution to the next tasks:

- to provide philosophical discourse on the meanings of education from Antiquity to the present;
- to reveal the socio-cultural functions of education;
- to analyze the trends in the development of education against the background of modern socio-cultural transformations, including globalization processes in society, the mass dissemination of new information technologies, which have led to the universalization and unification of education in general;
- to identify the specifics of the direction of development of the modern Kazakh model of education.

As a system, education includes a set of educational programs and standards, a network of educational institutions and governing bodies, as well as a set of principles that determine its functioning.

It should be emphasized that the philosophy of education is an area of philosophical knowledge that was formed in the West only in the 20th century. Nevertheless, in Kazakhstan, this field is still at the stage of formation and development.

In addition, the COVID–19 pandemic made its own adjustments both to the sphere of life of states and to the sphere of education. The education system was the most unprepared for such force majeure circumstances. However, the educational community in the shortest possible time managed to organize the learning process, taking into account the prevailing conditions. An important decision taken in this direction was the

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global transition to distance and online learning. In this regard, it was important to find the form of organization of the educational process that could preserve its content and allow it to adapt to new conditions.

Experimental

The principles of historicism, consistency, objectivity and comprehensive consideration, as well as the method of comparative analysis, were used as the methodological basis of the study.

Results and Discussion

Throughout the history of mankind, almost all major thinkers and philosophers have addressed the problems of education. This is proof that the intellectual elite of society has always understood the crucial role of education and upbringing in broadcasting culture and designing a social future.

Philosophy has always played an important role in the development of education. It acted as a source of new ideas in the educational sphere. In the modern scientific community, the problem of education is studied through the prism of the philosophy of education. Such researchers as Nikolaeva L.Yu. (2014), Borisov S.V. (2016), Mandel B.R. (2017) studied the modern issues of education. For example, Gruzdeva O.S. from the standpoint of the concept of rationality analyzed the philosophical and educational concept of J. Dewey, revealed the meaning of such key concepts as “communication”, “scientific thinking”, “experience” [3]. According to the study, an important component in the philosophy of education of J. Dewey is the pedagogical theory of experience, which is the basis for the development of students’ need for communication.

Also, Dovgyalo V.K. devoted his study “The European education system and the Bologna process” to the analysis of education in Europe. The author paid great attention to the consideration of the Bologna process, which is currently the main mechanism for the reform of higher education in Europe. He also substantiated the relevance of a comprehensive modernization of higher education [4].

Yuzhaninova E.R. indicated the features of the history and methodology of education based on the ideas of such philosophers as Socrates, Plato, Aristotle, J.J. Rousseau, I. Kant, G. Hegel. According to the author, “the philosophy of education is a research area of educational knowledge at its junction with philosophy” [2; 6]. In this regard, Yuzhaninova E.R. notes that currently there is no consensus on the philosophy of education. However, there are a number of opinions regarding this issue. Some researchers believe that philosophy is one, and there is no need to separate education from it, while others believe that the philosophy of education is an addition to the philosophy of any thinker. Some researchers believe that the philosophy of education is a continuation of social philosophy since the subject of its study is one of the social institutions of society.

Along with monographic works, there are a number of researchers who consider modern education in their publications. For example, a scientific article by the authors Gafurov I.R., Ibragimov G.I., Kalimullina A.M., Alisheva T.B. “Transformation of Higher Education During the Pandemic: Pain Points” touched upon the problem faced by the educational system during the pandemic. According to the authors, distance learning, which was necessary in the current conditions, can only be considered as a form that complements the traditional format of training [5; 109, 110]. Despite this, it is necessary to take into account that the new format of the education system using distance learning technologies was the most acceptable in the current conditions.

In this direction, Grunt E.V., Belyaeva E.A., Lissits S. in their scientific article “Distance education during the pandemic: New challenges to Russian higher education” conducted a sociological study to determine the main challenges faced by universities during the pandemic, and further prospects for the development of distance education [6; 49]. Investigating this problem, it should be noted that in the higher education system, long before the pandemic, the share of distance learning was insignificant. However, given the force majeure circumstances, there is a sharp transition of the education system to an online learning format, which showed the lack of both digital literacy of teachers and poor digital equipment for educational activities.

It should be noted that its qualitative content remains important for education. It was discussed in a scientific article “Updating the Content of Higher Education in the Context of Modern Sociocultural Trends” by E.E. Shishlova. The author argues that the content of higher education changes at various stages of the development of society, taking into account the achievements of science and technology, the demands of employers and students, educational and professional standards [7; 71]. Education must meet modern requirements for it. First of all, the content of education should reflect the relationship between general, secondary and vocational education. This, in turn, leads to continuous improvement of the level of professional training of teachers.

Education is possible in tandem with learning. As for the formation of education through learning, then initially a person's learning took place in everyday activities and communication. Further accumulation of knowledge, the emergence of writing and the complication of the social structure caused the further evolution of education. It was in the ancient era that thoughts about the organization of the learning and education process first arose. Bright representatives of ancient thought put forward their ideas and provisions related to human education, the achievement of the ideal of spiritual and physical perfection. The ancient Greek thinker Socrates, for example, believed that the formation of the mental and cognitive abilities of a person is important in learning. His inductive method of proof through dialogue led the student to the truth. Another ancient philosopher Aristotle believed that education is necessary for the physical, moral, mental development of the individual. He was a proponent of observation as a method of learning and understanding. According to Aristotle, the method of showing facts is fundamental to determining the method of scientific research. Thus, in the era of Antiquity, a model of an educated person was formed for the first time. According to this model, an educated person identifies himself as a part of the cosmos, this is a moral, harmonious personality, characterized by a high level of self-control, physical and spiritual perfection.

The next branch in the history of human development is the era of the Middle Ages, which is characterized by the doctrine of God, thereby focusing on the church, in whose hands the entire organization of upbringing and education was. Man was considered as the image and likeness of God, and the entire learning process was carried out exclusively through faith [8; 53]. A special role was assigned to the cult of the word, based on Christian commandments, and, as a result, prayers and sermons acquire great importance. In this regard, there is a sharpening of sacred texts, their understanding and explanation. An educated person in the Middle Ages acts as a spiritual, humble, thirsty for the atonement of sins.

In the Renaissance, a new type of education appears - humanistic, which is based on respect for a person, faith in his strength and capabilities, understanding the cultural heritage of antiquity. The goal of humanistic education was a comprehensively developed free personality capable of changing society. The image of a person of this era is clearly traced - this is a strong, talented personality with pronounced individuality.

The role of training and education begins to grow even stronger in the era of the New Age. It was with the formation of science as an independent and social institution in Europe that the development of the economy and trade, science and culture contributed to the formation of a new type of personality - an active and independent person. Man became a tester of nature, forcing her to obey his will and power. In this regard, such methods of cognition as analysis, synthesis, induction, deduction play an important role.

In the modern world, the further development of mankind depends on the effectiveness of education and its orientation.

Today, it is worth noting the presence of traditional and non-traditional forms of education in the system of higher education. The traditional, or classical, system of higher education assumes such a format of education, in which the provision of new educational material involves its further consolidation by students, as well as an assessment of their level of development and practical application. Such an education system assumes an approved curriculum based on state standards of higher education. Non-traditional, or non-classical, form of the education system is purposeful, complementing classical education. It has an individual orientation of learning [9; 1198]. Both traditional and non-traditional forms of the educational system are characterized by integrity and continuity, from preschool organizations to higher and postgraduate education. In this context, it is necessary to clarify that at present, the acquisition of knowledge by the subjects of educational activity is aimed not only at obtaining educational skills, but also at developing the creative abilities of the individual.

Modern education is characterized by the following areas of its activity: the formation of critical, non-linear, creative thinking, the skills of in-depth analysis, the development of one's own position, the ability to discuss. Thus, it is possible to define a model of a modern educated person with its characteristic features: this is a person with the ability of clear and independent thinking, capable of innovation, self-organization in a changing world. The formation of this model is impossible without such a principle of the educational system as openness, understood as the "transparency" of the educational system. This principle is an understanding by all subjects of the educational process of goals, objectives, meanings, values, technologies, pedagogical influences. Also, the possibility of openness makes sense with the participation of all subjects in the design and adjustment of the educational system.

For education, as for any other system, the following features are characteristic. This is, first of all, humanization, the essence of which is the affirmation of a person as the highest social value [10]. As part of

humanization, education is aimed at creating such forms and methods of teaching that can most effectively reveal the individual capabilities of students. At the same time, its mass nature should be highlighted, which implies equality of opportunity between all social strata of the population. In turn, the mass nature of education has led to qualitative changes in the educational system. For example, higher education institutions are constantly improving the content of educational programs in order to adapt them to the constantly changing conditions of the labor market. There is also a growing need to provide appropriate educational material and literature. Qualitative changes in the educational environment include the constant development of information and communication technologies, modern technical, audiovisual tools that increase the interest of students, their vigorous activity.

Another distinctive characteristic of the educational system is its national orientation, the essence of which lies in the inseparable connection of education with the national basis of the state, as well as in their organic interaction.

Speaking about modern education, including Kazakhstani, it is worth noting that in the course of the transformation of the education system, the vector aimed at distance learning has become more determined. As a result, the education system for the first time moved to a completely new level of functioning, but this form of education focused on new educational technologies, showed not only the positive aspects of online learning, but also its shortcomings. As a positive result, it should be noted that within the framework of distance learning, the role of IT technologies, IT literacy, both on the part of teachers and students, has changed. Considering the fact that most university professors do not fully master modern computer skills, it was necessary to quickly respond and adapt them to new online platforms such as ZOOM, Microsoft Teams, BandiCam, and others. Also, the demand by all subjects of the educational process for electronic libraries, resources, such as Kazneb, LitRes, IPR BOOKS, Google Books, and others, has also increased. Under the current conditions, the number of online educational courses, advanced training courses, for example, Coursera, EdX, and others, has increased. The positive aspects of the transition to an online learning format include the acquisition of educational skills by students without interrupting their work activities, the ability to re-view educational material using Internet resources. From the position of the object of educational activity, the advantage in this case is the possibility of expanding one's target audience, while maintaining the costs of organizing the traditional learning process.

However, there are also disadvantages to learning. For instance, the active use of Internet resources contributes to a large amount of compilation in preparation for classes, conducting research by students, which leads to a deterioration in the ability of students to correctly express a point of view and think critically, their speech loses its emotional coloring. There is also a decrease in the motivation for education on the part of students, their analytical activity, and the distortion of verbal communication of speech. Live communication between the teacher and students, characteristic of the traditional educational process, becomes minimal, thereby weakening the connection between the subjects of educational activity.

It should be noted that distance learning technologies were partially introduced into the learning process even before the onset of the pandemic. Therefore, at the moment of quick response to the further organization of the educational process in the context of the pandemic, higher education institutions were able to smoothly rebuild its traditional format to online [11; 73]. This was facilitated by the presence of a wide material and technical base, information infrastructure, e.g., owing to the use of equipment and software, personal access technologies were introduced by students into the local computer network of universities. Providing remote access to the resources of the network of higher educational institutions contributed to the prompt and uninterrupted access of both teachers and students to information resources. It should also be considered that in certain educational programs for the purpose of professional training of students, special virtual equipment was used and continues to be popular. For example, to develop professional skills, an aircraft pilot is trained in a virtual cockpit, while maintaining complete safety. Or in medical education, the use of simulation technologies based on realistic modeling, simulating a clinical situation continues. It should be added that the process of developing and using computer programs is relevant at the present time. For example, the SPSS database is a program for statistical data processing that allows one to conduct applied research in the social sciences and humanities, as well as accounting programs that ensure comprehensively automate accounting operations.

However, there are pronounced difficulties in the school system that impede effective learning in a pandemic situation. The reason for this is the low material and technical equipment of schools, difficulties in connecting to digital devices, and the lack of broadband Internet [12]. In this connection, at the government level, measures were proposed to stabilize the difficulties that had arisen. For example, the Kazakh TV chan-

nel Balapan began broadcasting daily uninterrupted online TV lessons. Schoolchildren also began to actively use online educational platforms, such as Bilimland. Thus, it is schools that are in the zone of increased tension in the organization of the educational process. The system of secondary education is hard to rebuild to a distance format, especially when contact between the teacher and the student is critically needed in the context of socialization.

Considering the foregoing, it should be said that education as a whole is a complex system that is in a constant process of formation and development. In this regard, there is a transformation of the education system into a complex social institution, and its general characteristics are becoming more and more diverse.

Conclusions

In the 20th century, education is not limited to learning and in its essence is understood as the most important category of human existence. Education is the result of the historical and cultural evolution of mankind and as such it reproduces a person, influencing his intellectual, moral, aesthetic and physical development.

Globalization challenges the national culture and education, which requires the preservation of the priorities of national education and spiritual values. The specificity of modern education is expressed in the fact that it goes beyond its own boundaries, which contribute to an increase in its social functions, subordinating all new areas of human activity in the information society, which leads to a change in the nature of education, where knowledge and information are significant elements of its system.

The first ideas about the essence of education and training are formed already in ancient philosophy, although there was no such thing as education in ancient Greece, nevertheless, there was a concept close to it “paideia”, which was understood as a means of universal development of the personality, the elevation of the soul in the process of mastering peace. (Plato).

In the Middle Ages, as a result of the theocentric worldview, knowledge was focused on comprehending the Holy Scriptures, and hence the desire for self-denial from everything sinful and the desire to comprehend God.

The Renaissance is characterized by anthropocentrism, focused on the humanistic understanding of man as the crown of the universe, where the Holy Scripture is replaced by natural philosophy, based on experience, observation and factuality.

The modern model of education, focused on the development of professional abilities of individuals, is also aimed at innovation and the creation of alternative meanings and new forms of practice.

In Kazakhstan, the philosophy of education, as a special area of knowledge of the essence of education, is currently still at the stage of formation.

During the study, the following results were systematized:

- the philosophical discourse of the cultural meanings of education from antiquity to the present was analyzed;
- socio-cultural functions of education were revealed;
- the trends in the development of education against the background of modern socio-cultural transformations, including globalization processes in society, the mass dissemination of new information technologies, which led to the universalization and unification of education in general were examined;
- the specificity of the modern Kazakh model of education was revealed.

The position and conclusions of the study may be of theoretical significance for understanding the problems of the education system, which is becoming increasingly relevant in the context of globalization. The results obtained can be used in the development of materials for lecture courses and seminars on the philosophy of education.

References

- 14 Ревякина В.И. Аксиологические проблемы культуры и образования современной молодежи / В.И. Ревякина // Образование и наука. — 2015. — № 5(124). — С. 15–26.
- 15 Южанинова Е.Р. История философии образования: Философия образования: учеб. пос.: [В 2 ч.] — Ч. 1 / Е.Р. Южанинова. — Оренбург: ОГУ, 2015. — 99 с.
- 16 Груздева О.С. Философия образования Джона Дьюи: моногр. / О.С. Груздева. — СПб.: ООО «Книжный дом», 2017. — 140 с.

- 17 Довгяло В.К. Европейская система образования и Болонский процесс: учеб. пос. / В.К. Довгяло. — Пермь: Перм. гос. гуманитар.-пед. ун-т, 2012. — 157 с.
- 18 Гафуров И.Р. Трансформация обучения в высшей школе во время пандемии: болевые точки / И.Р. Гафуров, Г.И. Ибрагимов, А.М. Калимуллин, Т.Б. Алишев // Высшее образование в России. — 2020. — Т. 29, № 10. — С. 101–112.
- 19 Grunt E.V. Distance education during the pandemic: new challenges to Russian higher education / E.V. Grunt, E.A. Belyaeva, S. Lissitsa // Perspectives of Science and Education. — 2020. — No. 47(5). — P. 45–58.
- 20 Shishlova E.E. Updating the Content of Higher Education in the Context of Modern Sociocultural Trends / E.E. Shishlova // Higher Education in Russia. — 2021. — Vol. 30, No. 6. — P. 70–79.
- 21 Едильбаева С.Ж. Философия образования: учеб. пос. для высш. учеб. завед. / С.Ж. Едильбаева. — Алматы: Казак университеті, 2014. — 152 с.
- 22 Гаврилова И.В. Формальная, неформальная и информальная модели образования / И.В. Гаврилова, Л.А. Запруднова. // Молодой ученый. — 2016. — № 10. — С. 1197–1200.
- 23 Иокша Е. А. Современные тенденции развития образования в мире [Электронный ресурс]. / Е.А. Иокша. — Режим доступа: http://ext.spb.ru/2011-03-29-09-03-14/75-correctional/12252-Sovremennye_tendentsii_razvitiya_obrazovaniya_v_mire.html.
- 24 Штыхно Д.А. Переход вузов в дистанционный режим в период пандемии: проблемы и возможные риски / Д.А. Штыхно, Л.В. Константинова, Н.Н. Гагиев // Открытое образование. — 2020. — № 5. — С. 72–81.
- 25 Саурмбаева А. Трудности перехода на дистанционное образование: кейс Казахстана [Электронный ресурс]. / А. Саурмбаева. — Режим доступа: <https://cabar.asia/ru/trudnosti-perehoda-na-distsionnoe-obrazovanie-kejs-kazahstana>.

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Білім беру мағынасының танымдық философиялық дискурсы

Мақалада білім барлық қоғамның дамуына маңызды рөл атқаратын жүйе ретінде қарастырылған. Өркениет дамуының әр тарихи кезеңінде білім беру жүйесінің негізі сипаттамаларын, сондай-ақ оның оқыту әдістерін жүйелеуге әрекет жасалды. Осылайша, әр тарихи кезеңге тән білімді адамның модельдері анықталды. Зерттелетін тақырып аясында заманауи білім жүйесі қарастырылды, негізгі принциптері ашықтық, үздіксіздік, ізгілендіру, оның ұлттық бағыты және педагогтің оқу іс-әрекетінен білім алушының оқу-танымдық іс-әрекетіне баса назар аудару болып табылады. Алайда, қазіргі жағдайда, коронавирустық инфекциядан туындаған пандемияның таралуын ескере отырып, білім жүйесі айтарлықтай өзгерістерге ұшырағанын атап өткен жөн. Ол мазмұны мен мәнін сақтай отырып, қашықтықтан оқытудың жаңа форматына ауыстырылды. Білім жаңа қалыптасқан ахуалға бейімдеу үрдісінде осы өзгерістердің жағымды және жағымсыз жақтары анықталды.

Кілт сөздер: білім жүйесі, білім эволюциясы, білімді адам моделі, үздіксіз білім, қашықтықтан білім беру технологиялары, онлайн оқыту форматы.

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Философский дискурс познавательных смыслов образования

В статье рассмотрено образование как система, оказывающая важную роль на развитие всего общества. Предпринята попытка систематизировать основные характерные признаки системы образования, а также ее методы обучения в каждый исторический период развития цивилизации. Тем самым определены модели образованного человека, характерные каждому историческому этапу. В рамках исследуемой темы также была рассмотрена современная система образования, основными принципами которой являются открытость, непрерывность, гуманизация, ее национальная направленность, перенос акцента с учебной деятельности педагога на учебно-познавательную деятельность обучающегося. Однако следует отметить, что в современных реалиях с учетом распространения пандемии, вызванной коронавирусной инфекцией, система образования претерпела значительные изменения. Она была трансформирована на новый формат дистанционного обучения, при этом сохранив свое содержание и суть. В процессе адаптации образования к новым сложившимся условиям были выявлены как положительные, так и отрицательные стороны данного перехода.

Ключевые слова: образование, образовательная программа, эволюция образования, модель образованного человека, непрерывное образование, традиционная форма обучения, нетрадиционная форма обучения, ИТ технологии в образовании, дистанционные образовательные технологии, онлайн формат обучения.

References

- 1 Reviakina, V.I. (2015). Aksiologicheskie problemy kultury i obrazovaniia sovremennoi molodezhi [Axiological problems of culture and education of modern youth]. *Obrazovanie i nauka — Education and Science*, 5 (124), 15–26 [in Russian].
- 2 Yuzhaninova, E.R. (2015). Istoriia filosofii obrazovaniia: Filosofii obrazovaniia: uchebnoe posobie [History of philosophy of education: Philosophy of Education: a textbook] (Vols. 1-2; Vol. 1). Orenburg: Orenburgskii gosudarstvennyi universitet [in Russian].
- 3 Gruzdeva, O.S. (2017). Filosofii obrazovaniia Dzhona Diui [John Dewey's Philosophy of Education]. Saint Petersburg: Knizhnyi dom [in Russian].
- 4 Dovgialo, V.K. (2012). Evropeiskaia sistema obrazovaniia i Bolonskii protsess [The European Education System and the Bologna Process]. Perm: Permskii gosudarstvennyi gumanitarno-pedagogicheskii universitet [in Russian].
- 5 Gafurov, I.R., Ibragimov, H.I., Kalimullin, A.M., & Alishev T.B. (2020). Tranformatsiia obuchenie v vysshei shkole vo vremiia pandemii: bolevye tochki [Transformation of Higher Education During the Pandemic: Pain Points]. *Higher Education in Russia*, 29, 10, 101–112 [in Russian].
- 6 Grunt, E.V., Belyaeva, E.A., & Lissitsa, S. (2020). Distance education during the pandemic: new challenges to Russian higher education. *Perspectives of Science and Education*, 47(5), 45–58.
- 7 Shishlova, E.E. (2021). Updating the Content of Higher Education in the Context of Modern Sociocultural Trends. *Higher Education in Russia*, 30, 6, 70–79.
- 8 Edilbayeva, S.Zh. (2014). Filosofii obrazovaniia: uchebnoe posobie dlia vysshikh uchebnykh zavedenii [Philosophy of Education: a Textbook for Higher Education Institutions]. Almaty: Qazaq universiteti [in Russian].
- 9 Gavrilova, I.V., & Zaprudnova, L.A. (2016). Formalnaia, neformalnaia i informalnaia modeli obrazovaniia [Formal, informal and informational models of education]. *Molodoi uchenyi — Young Scientist*, 10, 1197–1200 [in Russian].
- 10 Ioksha, E.A. (2011). Sovremennye tendentsii razvitiia obrazovaniia v mire [Modern trends in the development of education in the world]. Retrieved from http://ext.spb.ru/2011-03-29-09-03-14/75-correctional/12252-Sovremennye_tendentsii_razvitiya_obrazovaniya_v_mire.html [in Russian].
- 11 Shtykhno, D.A., Konstantinova, L.V., & Gagiev, N.N. (2020). Perekhod vuzov v distantsionnyi rezhim v period pandemii: problemy i vozmozhnye riski [Transition of Universities to Distance Mode During the Pandemic: Problems and Possible Risks]. *Otkrytoe obrazovanie — Open education*, 5, 72–81 [in Russian].
- 12 Saurambaeva, A. Trudnosti perekhoda na distantsionnoe obrazovanie: keis Kazakhstana [Difficulties of transition to distance education: the case of Kazakhstan]. Retrieved from <https://cabar.asia/ru/trudnosti-perekhoda-na-distantsionnoe-obrazovanie-kejs-kazakhstana> [in Russian].