

K. G. Kassymova<sup>1\*</sup>, I. Y. Aksarina<sup>2</sup>, A. V. Demchuk<sup>3</sup>, G. A. Stepanova<sup>3</sup>, Y. S. Aksarina<sup>2</sup>,  
M. A. Bogach<sup>3</sup>, S. N. Brovkina<sup>4</sup>, A. V. Kosov<sup>5</sup>, M. R. Arpentieva<sup>5\*</sup>, S. K. Dossayeva<sup>6\*</sup>

<sup>1</sup>Abai university, Satbayev University, Almaty, Kazakhstan,

<sup>2</sup>Ugra state university, Khanty-Mansiisk, Russia,

<sup>3</sup>Surgut state university, Surgut, Russia,

<sup>4</sup>Kyrgyz state medical academy named after I. K. Ahunbaev, Bishkek, Kyrgyz Republic,

<sup>5</sup>Tsiolkovskiy Kaluga state university, Kaluga, Russia,

<sup>6</sup>National academy of sciences of the Republic of Kazakhstan.

E-mail\*: zhaina.kassym@gmail.com, mariam\_rav@mail.ru, s.dosaeva@mailru

## FORESIGHT AND THE ROLE OF INNOVATION IN THE DEVELOPMENT OF EDUCATION

**Abstract.** Foresight is a system of methods for transforming priorities in education and science, economics and production, social and cultural development. In modern Russia, the foresight of education acts as a means of its collapse: theorists and methodologists of educational foresight, working on behalf of comprador corporations, consistently build a system of priority tasks that not only ignore the domestic experience of education and upbringing, but also destroy it and its ideals. The development and self-realization of the person was replaced by the values of selling the person and using it in the most convenient ways for corporations. The purpose of the study is to analyze the problems and prospects of modern education as a theory and practice, which combines the experience of training and educating a person throughout his life in various (subject/professional) fields and situations gained by many generations, communities, cultures, humanity as a whole. The basis of the research is the theoretical analysis and integration of data on various theoretical and practical pedagogical, psychological, sociological and other models of education and the development of education in order to identify problems of the foresight of modern education. The main line of transformations during the transition to a new way of life is no more sophisticated exploitation of man and society as "capital", but the priority of these types of "capital" is in itself.

**Keywords:** education, dynamic capability, foresight, self-realization, integrative model of education.

**Introduction.** Globalization as a phenomenon of culture involves the spread of modern economic, legal, sociological and other theories, including in the sphere of their application to development, and, more precisely, to destruction, science and education, from countries considered to be carriers of universal "culture," civilization " (Europe and the USA) to the barbarian countries of the "second" and "third" worlds (Evzrezov, Mayer, 2013; Kryukov, 2010). Neither science nor education is necessary for the globalized world: the unification of power, cephalization and digitalization of management (mondialization) are opposed to development. And, if the foresight of education is really interesting to us, we should look at the myths about modern education and its history critically.

**Problem statement.** According to the supporters of globalization and mondialization (which "separatist" and other movements of national revival are quite successfully opposing in the modern world), large-scale innovations in education occur infrequently: supposedly, there were only four in the last thousand years. In the West, the practice and theorists of education often mark out the following as the main ages of world education: 1) appearance in X-XII centuries in Europe, universities focused on the translation of the universe of knowledge (Bologna, Paris); 2) class-lesson system proposed by Y.A. Comenius in the XVII century, which has now become the pedagogical norm for mass education; 3) the emergence in the XIX century of research-type universities according to the model of V. von Humboldt, intended for the generation of scientific knowledge and the training of researchers; 4) the idea of pragmatic education and experimental teaching method proposed by J. Dewey at the turn of the XIX-XX centuries, which became the basis for the development of project training and "active methods" of preparation

(SEDeC, 2013b: 4). This list does not practically represent the ideas of theorists and practitioners of the national school, including the ideas of forming the skills of learning and teaching, theories of the gradual formation of mental actions and other learning models (L.S. Vygotskiy, V.V. Davydov, P.Y. Halperin, etc.), made the Soviet education in the XX century, the best in the world. Modern researchers, it seems, have not even heard of them, comparing educational “brownfields” and “greenfields” of western education and building a foresight on the basis of Western models that have repeatedly manifested their inferiority of Western models: “Traditional educational institutions, the fate of which is most often discussed in the expert community, can be called “Brownfield” - the historically established “zone of educational practice.” “Greenfield” will be new educational projects (educational start-ups) created on the basis of new technological grounds. Such projects are in reference (Evezrezov, Mayer, 2013: 3). The educational foresight must take into account not only “strong trends” of targeted destruction of national education and destructive pseudo-innovations (such as Erasmus +, unintelligible and constantly rewritten “federal state standards” and other ways of creating maximum difficulties for creating a country), but also “jokers” of real and truly unique achievements of domestic teachers and psychologists: not only “alien”, but also “own” resources and experience. And the latter are huge. Different technologies and methods, procedures of “acceleration” of education are not new at all and often have as their basis the theory and technology of modern intensive teaching methods, for example, G. Lozanov’s intensive suggestopedic teaching method and G.A. Kitaygorodskaya. In these models, it is assumed that a person’s abilities are not limited and depend on the environment. Therefore, you can create the conditions and find those areas that are usually not involved. The state of a reduced level of consciousness is also used in hypnopia (A. M. Svyadosch, V. V. Vakhmistrov, V. P. Zukhar, V. P. Bliznichenko). The model of activating the capabilities of the individual and the collective of A. Kitaygorodskaya is in many ways similar to this model, but at a different level of understanding. The main postulates and methods of the system G.A. Kitaygorodskaya related to the concepts of the Soviet psychological school: theories (speech) activities of A.N. Leontiev and A.A. Leontiev, the theory of personality and team A.V. Petrovskiy and V.A. Petrovskiy. G.A. Kitaygorodskaya and many other Soviet and Russian pedagogics and scholars correlate intensive and high-quality education not with minimization, but with maximization of individual and joint efforts, of the teacher and the students. Activation of training is the activation of the activity of the teacher and students. However, minimization or maximization itself is formal, it is necessary to create new or use old technologies that allow “expanding” a person’s abilities, his faith in himself and the world, freedom and activity, etc. In general, the pedagogy of modernity contains a huge amount hives, we list only the most famous and productive of them (not including the actual traditional teaching methods): methods of “learning optimization”; methods of problem-developmental education (Makhmutov M.I.); business games and contextual learning (Verbitsky A. A.); programmed learning (Talyzina N.F., Bespalko V.P.); intensive training (G. Lozanov, G. A. Kitaygorodskaya, I. Yu. Shekhter, L. Sh. Gegechkori); methods of stimulating creativity (scientific, technical, artistic creativity); methods of enhancing general educational skills; mental state self-regulation (Romain A.S.); learning methods of accelerated perception of information (F. Lezer, A. Churilo); drafting reference notes and rational work with texts (Shatalov V.F., Fedorova A.A.); activation of the educational process (Danilov M. A., Esipov B. P., Ogorodnikov I. T. Makhmutov M. I.); development of theoretical thinking (V. Davydov, D. B. Elkonin); the formation of spiritual needs (Yu. V. Sharov); education needs (Ilyin V. S.); development of cognitive interests (Shchukin G. I., Bozhovich L. I.); ability to learn and learn (N.P. Nichiporenko, M.R. Arpentieva); motivation in learning activities (Markova A.K.); the phased formation of mental actions (P. Halperin); problem-based learning (A. M. Matyushkin, T. V. Kudryavtsev, I. Ya. Lerner); immersion techniques (A. Plesnevich, G.V. Dyakonov, etc.). Of the foreign methods, it should be noted theories and methods of in-depth training, heuristics, metacognitive learning (much more interesting and complete than “neuropedagogics”, etc.), as well as the (contextual) concept of learning types of G. Bateson. To some achievements of dubious sense can be attributed, as noted in the theory and methodology of “metasubject”, “competence,” as well as “inclusive” and many other educational trends of pedagogy. These trends aimed at reducing both intensity and productivity. "At the same time, as we see, lack of culture is exalted due to the uncontrolled penetration of digital technologies into the life of modern people: the dangers of “digital dependence” do not bother the supporters of “greenfield”, it seems that they are glad that modern students and students either lag behind in development, or so they are “ahead” that their brains and bodies as a whole become the

brains and bodies of a seriously ill, old person in 11-13 years, that their relationships with themselves and the world are not formed and remain primitive and dependent, and their soul and does not “wake up”, since moral criteria are excluded from the interaction of *res ipsa declarat, par excellence*, that Russia is actively striving to turn into an exclusively “raw material base”, first of all, turning its population into a “raw material”.

The educational foresight must take into account not only the “strong tendencies” of purposeful destruction of national education and destructive pseudo-innovations (such as Erasmus +, etc.), but also the “jokers” of domestic achievements. These achievements are used all over the world in the most advanced models of education, including in Japan, Norway and other post-capitalist fears. Education within the framework of the model of J. Dewey and his followers, even especially in the Global Education Futures (GEF) models, not only never was an innovation in education, but acted and acts as a way to return education to the pre-university way of learning: the informative breakdown of education in its improvement is the goal of modern capitalism (Zhukova, 2016). In Russia, there has always been a system of universities (higher educational institutions - “HEI”) and secondary vocational schools (secondary special educational institutions - “SSEI”): no one protested against the choice of a person. Everyone had a choice. Now there is no choice: the foresight invites us to begin trading in our abilities, knowledge and skills already at school. However, if we build a foresight, based on the fact that on Earth the power of the comprador bourgeoisie will be eternal, we are mistaken. We need to choose other points of reference, indicated by our, domestic researchers, as well as the world's leading achievements in this field. And these are not unfounded and useless statements that education becomes media education, etc. This argument about who a person becomes, what form of relationship with the world, with life, with God he chooses, how to make the mass education that has lost the imperative of “quality” still be able to return to it, and, if possible, rise a new stage / climb a new step. Transformation of education into a mass process and mediatization of education, the transformation of educational institutions and scientific centers into “educational enterprises”, under the slogans of “monetization” and obtaining benefits, is not a subject for delight, on the contrary, Modern education, thanks to the business, went in the opposite development. The bourgeoisie pushes society from selling money to selling knowledge and skills, and then to selling themselves. As far as this situation and enthusiastic foresight forecasts are out-of-moral, non-viable, as far as they are anti-educational, almost none of those who are actively engaged in this notice (Burov, 2016; SEDeC, 2013a). However, a foresight is a development, even if it exists in spite of attempts by the comprador bourgeoisie to destroy education and science in general. “Human capital”, which seems to be designed to provide education for the future, is understood as other, financial and material capital: it can and should be distributed to banks (industrial zones - concentration camps), depriving a person of not only independence, but also self-awareness. It is a natural goal of those who do not have this very self-consciousness (Burov, 2016; SEDeC, 2013a; SEDeC, 2013b). In fact, there is nothing new in many “foresight reports”; there are no insights about what will actually advance the development of education: digital technologies are just technologies, they are either “greenfield” or “brownfield”. At the same time, hopes that absolutely new methods and approaches will appear in the next century are quite understandable, especially when the past is forgotten. However, as you know, “new is a well forgotten old”.

**Research questions.** The issue of our research is related to the fact that modern science and practice of education is undergoing a systemic crisis. It is associated with attempts at “renewal for the sake of renewal”: innovations are declared, which, however, either do not materialize or lead to deformations and destruction of educational relations. The theme of “crisis” and “end” of the university, the problem of university interaction and power (business) and the university's loss of the spirit of freedom, changing the essence of the “university idea” as a multiple phenomenon, as well as the problem of mass education as a manifestation of “mass uprising” and the need to form specialists, that is, individuals capable of withstanding the onslaught of the masses, are popular throughout the 20th century and earlier (the works of F. Nietzsche, H. Ortega-i-Gasset, M. Weber, E. Durkheim, K. Jaspers, A.N. Whitehead, V. Humboldt, J. Newman, J.-F. Lyotar, B. Readings, etc.). The modern foresight of education practically rejects the entire history of pedagogy and pedagogical psychology, cultural and sociological research, focusing on educational models created for the purpose of its maximum simplification and short-term effectiveness. These models of “express education” can be productive for some period of time and in some situations, however, in general, the predominance of the “short perspective” is alien to education in general and

productive and effective educational practices and technologies. Education is essentially a long-term process that requires not a consumer, narrowly functional, but a spiritual, moral, sacral attitude and understanding. If a community loses its powerful education system, it essentially loses itself. If the community focuses on education only in the applied aspect (as well illustrated by the TOP-50 professions in Russia, which includes only professions of the “service” type, which do not require either high competence or development of a person as an individual, partner and professional), then the country's development prospective sharply collapses. Such a country has no future. On the contrary, respect for education, its practices, teachers and other researchers and developers of pedagogical approaches and technologies, speaks of the importance of taking into account the diversity of research experience and achievements throughout human history, in all regions and communities. Neither the Soviet nor the Scandinavian, nor, moreover, American, education and its "idols", like J. Dewey, cannot be the only building pillars and criteria for evaluating the constructed systems and educational infrastructures (Barber, Donnelly, Rizvi, 2013).

**Purpose of the study and research method.** The purpose of the study is to analyze the problems and prospects of modern education as a theory and practice, which combines the experience of training and educating a person throughout his life in various (subject/professional) fields and situations gained by many generations, communities, cultures, humanity as a whole.

The basis of the research is the theoretical analysis and integration of data on various theoretical and practical pedagogical, psychological, sociological and other models of education and the development of education in order to identify problems of the foresight of modern education.

**Findings.** As for the foresight itself, it should be noted that this theory is closely related to the development of an incompletely formulated concept of technological structures, which is currently trying to understand the moral and social implications of changing technologies, as well as an interesting concept of dynamic abilities, which is trying to solve the old problem of “personality in history / organization” (“inconvenient” realization that an uneducated and ill-mannered manager in an educational organization, interested only in ensuring its profitability leads both its organization and all education to decay). It is also associated with the fictions of the theories of “sustainable development”, as well as with traditional developments in the field of strategic management with its understanding of the importance of the mission and the moral foundations of the organization's theory and intersubjective management (evergetics of the V. Vittich, second democracy of the A. Adler, deep democracy of the A. Mindell, etc.. (Adler, 1993; Arpentieva, Duvalina, Gorelova, 2017, Mindell, 1998; Vittich, 2014). Among these trends, the theory and practice of foresight and enhancing the dynamic abilities of enterprises are among the leading ones, since they directly address the question we have about who is going to cultivate the "2030/2035 foresight model of education": an obedient and deprived individual, convenient to use member a social herd or an individual with their own understanding of their lifetimes and priorities? In our opinion, the answer is obvious, so we will try to consider the capabilities of the dynamic ability model as one of the least “hostile” education, and, in many ways, supplementing the strategic management model with an awareness of the need for dialogue between educational and scientific institutions with society and the state. Dialogue of equal, full, developed and deep. Dialogue in which education and science affect the community, and are not a means of rationed violence of the state and the community in relation to the individual, in relation to the human soul. Theories and practices of foresight and enhancing the dynamic abilities of enterprises act as important tools for regulating the national and world economy, and, in the field of education and science, the development of education and science in the country. The problems of effectively forecasting the development of the economy and production, including the functioning and development of certain sectoral markets in a crisis period for society, its economy and politics, are closely related to the so-called dynamic abilities of enterprises, their abilities to restructure and diversify due to sectoral market trends, highlight both strong, obvious, and weak, subtle, but important trends, including threats and development prospects, challenges of time and challenges of regional markets (Arpentieva, 2017; Arpentieva, 2018; Kulesh, 2015; Tis, Pisano, Shuen, 2003). An important role in the development of education is also played by “breakthrough” and “subversive” technologies. In their development and application, however, it is important to remember that these are special technologies. They do not undermine and do not break through the “educational services markets”, but serve to enrich education, including changing the ratio of routine and creative forms of activity, directive and intersubjective education management. Disruptive and breakthrough technologies are fraught with great risks and insufficient amount of retrospective

information about their use. That is why in their advancement it is necessary to carefully assess the potential of the technologies used and include them into an integrative foresight model (Kostenko, 2013). Breakthrough and disruptive technologies are changing the situation in education and other areas of social life (DaSilva, Trkman, Desouza, & Lindič, 2013; Sharon, 2016; Van Esler, 2016; Von der Gracht, Venne- mann, Darkow, 2010). They contribute to the success and integration of traditional and innovative business and cultural projects. However, they often destroy existing markets (market conditions) by introducing innovative business models with many new dynamic capabilities. Breakthrough and disruptive technologies use strategic approaches at different levels and components of organizations, firms and markets. They are effective where they are embedded in the mission of the institution and in traditional technologies and strategies for its development and functioning. In the intensively and steadily developing institutions of education, culture, etc. advanced digital, psychological, biological, control, and other technologies are often used together (Sharon, 2016; Van Esler, 2016; Dudley, Banister, & Schwanen, 2017).

Thanks to dynamic abilities, more or less large organizations, their subversive and breakthrough technologies leave the start-up stage, and become dominant. In addition, breakthrough or disruptive technologies change the view of the future and how to achieve it. Breakthrough and disruptive technologies are the main components of an enterprise's dynamic capabilities. On the one hand, from a tactical point of view, they destabilize education, and on the other hand, on the strategic side, they allow education, the community as a whole, to develop steadily and harmoniously. A true foresight is distinguished by the involvement in the process of studying and creating the future of those who are most interested in it, by systematic, complex modeling and research of the main factors and forces that influence and transform this future. In Russia, lobbyists of comprador corporations and comprador structures of the state are often engaged in foresight: university programs in Russia are increasingly approaching primary school programs that form an ignorant personality, easily manipulated, ready and forced to survive in order to survive, not only with their truncated knowledge and skills, but and yourself. Modern strategic management in the system of education and science is focused on a systematic account of old and new sources of development and threats, constraints and production prospects in accordance with the challenges of specific time and space - analysis of regional requests, prevention and correction of organizational crises and collapses, reduction of bureaucratization and corruption in organizations, reducing "personnel leakage", including "brain drain", downshifting and deprofessionalization. Such management relies on the understanding that everything in the world is interconnected, and thus even the most destructive, dangerous events and phenomena can be identified, prevented or corrected in one way or another. Similarly, phenomena and events that create conditions for the development of production and the economy, as well as society as a whole, including education, science, and culture, can be identified, enhanced, and, in some cases, specially created. In this connection, the role of such dynamic abilities of institutions of science and education arises and strengthens, which allow to identify and predict the development of the education system and its institutions, to carry out long-term strategic planning, taking into account these forecasts, their conclusions about future more or less important and obvious changes, to manage these changes. In this context, the theory of dynamic abilities is closely intertwined with the theory of foresight, as well as a number of other theories based on the concept of complex systems, their fractal, and synergistic, self-developing and self-regulating nature. The theory of dynamic abilities is also built on the idea of educational organizations as complex, heterogeneous, changing and supporting the internal and external balance of systems. Therefore, the foresight should become an organic part of the theory of dynamic abilities, expanding it and deepening the understanding of the essence, activation. A true foresight is distinguished by the involvement in the process of studying and creating the future of those who are most interested in it, by systematic, complex modeling and research of the main factors and forces that influence and transform this future (Zhukova, 2016; Kulesh, 2015). In Russia, lobbyists of comprador corporations and comprador structures of the state are often engaged in foresight: university programs in Russia are increasingly approaching primary school programs that form an ignorant personality, easily manipulated, ready and forced to survive in order to survive, not only with their truncated knowledge and skills, but and itself.

Alternative foresight education in Russia, of course, includes "resuscitation", the recollection and restoration of the moral foundations of education and its orientation not to optimize sales of students' abilities, knowledge and skills, not to form a consumer that is convenient for consumption, whose only purpose in life is comfort and survival, and both self-realization and development as individuals and as

members of a community striving for transcendence, self-realization in the process of serving people. This, of course, requires the involvement of new and old practices and concepts, their innovative reintegration for the development of man and mankind. This requires the restoration of all the fullness and wealth of methods and knowledge of the national school, Russian education, which have shown their productivity of foreign old and new concepts and technologies, as well as the complete exclusion from education of financial interests and coercions (“paid education” and “monetization” of scientific research - already caused irreparable harm to Russia, and not only to its scientists and educators). It includes their theoretical rethinking and integration of methods and technologies, and not just “gamification”, “mediation” and other “-tion” (Arpentieva, 2017; Barber, Donnelly, Rizvi, 2013; Kryukov, 2010). Without serious scientific research and the support of real researchers, and not just “fictionalists,” composers of pseudo-forwards websites, further education will not move.

**Conclusion.** Post hominum memoriam, man is a measure of things: *primumvivere*. It is not a subject of sale, at any age, with any talents, on which modern foresight projects and ministries so enthusiastically insist on almost totally paid education and science today (Peskov, 2016). Careless substitution of achievements of modern education and replacement of genius P.Ya. Halperin on the usual J. Dewey, does not save the Russian education. And it's time to save him. Therefore, the result is *periculum in mora*. Otherwise, there will simply be no one to work: one can scoff at people, destroy both dignity and life carefully and for a long time, but paraphrasing M. Bulgakov, a person is mortal and mortal suddenly. You can't try to undo the changes and go back: the main line of transformations during the transition to a new way of life is no more sophisticated exploitation of man and society as "capital", but the priority of these types of "capital" is in itself. Not education should serve the interests of corporations, as it is believed by the citizens biased by the latter: *pars pro toto*. *Rercipit quasi notissimum*, corporate interests are the interests of people, humanity. This is the answer to the question of how to protect Russia, which has been dying out from the *pia desiderata* of “developed democracy” in the past three decades, from further, destroying its steps on the “road maps” of the genocidal foresight, from the noble dedication of foreign sponsors implanting in Russia and other post-soviet countries are alien, and, most importantly, inefficient and unproductive technologies and ideologies of learning and education, from others, *pactumisillicitum*. *Prius vitiis-laboravimus, nuns legibus*, but from the fact that defects turn into laws, the burden does not decrease. Obviously, this situation can not last long. For example, at present one of the theoretical "bastions" of ideas of practical orientation of education, the need for its standardization and simplification, "stretching" for life in the form of continuous education and retraining, a supporter of the monetization of educational services, the United Kingdom has successfully built on the Soviet model. Russia needs a bit. It needs, without waiting for the tendency to come from the West, to recall the best achievements of its practitioners and scientists, to combine them with the achievements of teachers and psychologists of the Scandinavian and some other countries. The solution of this task is not difficult: the corresponding comparative studies have already been carried out (Arpentieva, Kassymova, Lavrinenko, Tyumaseva, Valeeva, Kenzhaliyev, M. B. Triyono, Kosov, Duvalina, 2019; Arpentieva, Krasnoschechenko, Kirichkova, Zalavina, Stepanova, 2018; Arpentieva, Kirichkova, Kosov, Feshchenko, Golubeva, 2018; Bogomolova, Menshikov, Arpentieva, Gorelova, Zalavina, 2018, Kostenko, 2013; Kassymova, Arpentieva, Kosherbayeva, Triyono, Sangilbayev, Kenzhaliyev, 2019; Kassymova, Tyumaseva, Valeeva, Lavrinenko, Arpentieva, Kenzhaliyev, Kosherbayeva, Kosov, Duvalina, 2019; Kassymova, Tokar, Tashcheva, Slepukhina, Gridneva, Bazhenova, Shpakovskaya, and Arpentieva, 2019; Kassymova, Stepanova, Stepanova, Menshikov, Arpentieva, and Merezchnikov, Kunakovskaya, 2018; Stepanova, Tashcheva, Stepanova, Kassymova, Tokar, Menshikov, and Arpentieva, 2018; Stepanova, Tashcheva, Markova, Shpakovskaya, Arpentieva, Bazhenova, Tokar and Kirichkova, 2019; Stepanova, Gridneva, Menshikov, Kassymova, Tokar, Merezchnikov, and Arpentieva, 2018 and many other works), the productivity and effectiveness of education as a socio-cultural, developing, rather than commercial, and development-limiting practice has been repeatedly proved, including in Russia. In the post-capitalist countries, as in the USSR, education acts not as a service that is sold in order to create specialists selling themselves, but as a manifestation of the care of older generations about the younger ones. Education is a process and result of the transfer and co-creation of universal and national cultural experience.

Г. К. Касымова<sup>1</sup>, И. Ю. Аксарина<sup>2</sup>, А. В. Демчук<sup>3</sup>, Г. А. Степанова<sup>3</sup>, Ю. С. Аксарина<sup>2</sup>,  
М. А. Богач<sup>3</sup>, С. Н. Бровкина<sup>4</sup>, А. В. Косов<sup>5</sup>, М. Р. Арпентьева<sup>5</sup>, С. К. Досаева<sup>6</sup>

<sup>1</sup>Абай атындағы Қазақ Ұлттық педагогикалық университеті және

Қ. И. Сәтбаев атындағы Қазақ ұлттық техникалық университеті, Алматы, Қазақстан,

<sup>2</sup>Ұйғыр мемлекеттік университеті, Ханты-Мансийск, Ресей,

<sup>3</sup>Сургут мемлекеттік университеті, Сургут, Ресей,

<sup>4</sup>Қырғызстан Республикасы, Қырғыз Республикасы,

И. К. Ахунбаев атындағы Қырғыз Мемлекеттік Медициналық Академиясы,

<sup>5</sup>Циолковский атындағы Калуга мемлекеттік университеті, Калуга, Ресей,

<sup>6</sup>Қазақстан Республикасы Ұлттық ғылым академиясы

## ФОРСАЙТ ЖӘНЕ БІЛІМ БЕРУДІ ДАМУДА ИННОВАЦИЯНЫҢ АЛАТЫН РӨЛІ

**Аннотация.** Форсайт – білім және ғылым, экономика және өндіріс, әлеуметтік және мәдени дамудағы басымдықтарды өзгертудің әдістерінің жүйесі. Қазіргі Ресейде білім берудің болжауы оның құлдырауының құралы ретінде әрекет етеді: компартирлік корпорациялардың атынан жұмыс істейтін білім беру форсита-торлары мен әдіскерлері үнемі отандық білім мен тәрбиелеу тәжірибесін ескермей қоймай, басым міндеттер жүйесін қалыптастырады. Сондай-ақ оны және оның идеалдарын бұзады. Адамның дамуы мен өзін-өзі жүзеге асыру адамның сатылу құндылығымен және оны корпорациялар үшін ең қолайлы жолмен пайдалануымен ауыстырылды. Зерттеудің мақсаты – мәдениет пен адамзатты тұтастай алғанда заманауи білім берудің проблемалары мен перспективаларын әртүрлі (пәндік/кәсіптік) салалардағы және көптеген ұрпақтар, қоғамдас-тықтардың өміріндегі адам өмірін оқыту және оқыту тәжірибесін біріктіретін теория және тәжірибе ретінде талдау. Зерттеудің негізі заманауи білім берудің алдын-ала болжау проблемаларын анықтау мақсатында теориялық және практикалық педагогикалық, психологиялық, социологиялық және басқа білім беру модельдері мен білім беруді дамыту туралы мәліметтерді теориялық талдау және интеграциялау болып табылады. Өмірдің жаңа түріне көшу кезіндегі басты өзгерістердің бірі – адам мен қоғамның «капитал» ретінде күрделі пайдалануы болып табылмайды, бірақ «капиталдың өзі» осы түрлерінің басымдықтарын пайдалану болып табылады.

**Түйін сөздер:** білім, динамикалық қабілет, форсайт, өзін-өзі тану, білім берудің интеграциялық моделі.

Г. К. Касымова<sup>1</sup>, И. Ю. Аксарина<sup>2</sup>, А. В. Демчук<sup>3</sup>, Г. А. Степанова<sup>3</sup>, Ю. С. Аксарина<sup>2</sup>,  
М. А. Богач<sup>3</sup>, С. Н. Бровкина<sup>4</sup>, А. В. Косов<sup>5</sup>, М. Р. Арпентьева<sup>5</sup>, С. К. Досаева<sup>6</sup>

<sup>1</sup>Казахский Национальный педагогический университет им. Абая и

Казахский национальный технический университет им. К. И. Сатпаева, Алматы, Казахстан,

<sup>2</sup>Югорский государственный университет, Ханты-Мансийск, Россия,

<sup>3</sup>Сургутский государственный университет, Сургут, Россия,

<sup>4</sup>Кыргызская государственная медицинская академия им. И. К. Ахунбаева, Бишкек, Кыргызская Республика,

<sup>5</sup>Калужский государственный университет им. К. Э. Циолковского, Калуга, Россия,

<sup>6</sup>Национальная академия наук Республики Казахстан

## ФОРСАЙТ И РОЛЬ ИННОВАЦИЙ В РАЗВИТИИ ОБРАЗОВАНИЯ

**Аннотация.** Форсайт – система методов прогнозирования и преобразования трендов, аутсайдеров и приоритетов в сфере образования и науки, экономики и производства, социального и культурного развития. В современной России форсайт образования, однако, выступает средством его разрушения: теоретики и методологи образовательного форсайта, работая в интересах корпораций-компрадоров, последовательно выстраивают систему технологий и задач, которая не только игнорирует отечественный опыт образования и воспитания, но направлена на то, чтобы уничтожить его и его идеалы. Развитие и самореализация человека в нем заменены на более удобными для корпораций идеями приспособления и соперничества. Целью исследования является анализ проблем и перспектив современного образования как теории и практики, который сочетает в себе опыт обучения и воспитания человека на протяжении всей его жизни в различных (предметных/профессиональных) областях и ситуациях, накопленный многими поколениями, сообществами, культурой и человечеством в целом, в том числе анализ проблем современного образовательного форсайта. Основой исследования является теоретический анализ и интеграция данных по различным теоретическим и практическим педагогическим, психологическим, социологическим и другим моделям образования и разви-

тия образования с целью выявления проблем предвидения современного образования. Основной линией преобразований при переходе к новому образу жизни выступает не изощренная эксплуатация человека и общества как «капитала», но приоритет этих типов «капитала» самих по себе.

**Ключевые слова:** образование, динамические способности, предвидение, самореализация, интегративная модель образования.

#### **Information about authors:**

Kassymova G. K., PhD doctoral candidate, senior lecturer at Abai university; Satbayev University in Almaty, the Republic of Kazakhstan; zhaina.kassym@gmail.com; <https://orcid.org/0000-0001-7004-3864>

Aksarina I. Y., Humanitarian institute of Northern Studies, Ugra state university, Khanty-Mansiisk, Russia; I\_Aksarina@ugrasu.ru

Demchuk A. V., Department of Education and Professional Education, Surgut state university, Surgut, Russia; dem\_anastasiya82@mail.ru; <https://orcid.org/0000-0003-2556-8420>

Stepanova G. A., Department of Education and Professional Education, Surgut state university, Surgut, Russia; g\_stepanova53@mail.ru; <https://orcid.org/0000-0002-3082-6626>

Aksarina Y. S., Department of Pedagogy of the of Northern Studies, Ugra state university, Khanty-Mansiisk, Russia; aksarinayana@gmail.com

Bogach M. A., Department of Pedagogy of professional and additional education, Surgut state university, Surgut, Russia; mariyakolbasa@mail.ru; <https://orcid.org/0000-0002-6864-9063>

Brovkina S. N., Kyrgyz state medical academy named after I. K. Ahunbaev, Bishkek, Kyrgyz Republic; brovkina04@gmail.com

Kosov A. V., Candidate (PhD) of Psychological Sciences of psychological Sciences, associate professor, associate professor of the department at the social and organizational psychology, Tsiolkovskiy Kaluga state university, Kaluga, Russia; sanslav@kaluga.net; <https://orcid.org/0000-0002-1691-8487>

Arpentieva M. R., grand doctor (Grand PhD) of psychological Sciences, associate professor, corresponding member of the Russian academy of natural sciences (RANS), professor of the Department at the Development and Education Psychology, Tsiolkovskiy Kaluga state university, Kaluga, Russia; mariam\_rav@mail.ru; <https://orcid.org/0000-0003-3249-4941>

Dossayeva S. K., Head of the Department of Science, National academy of sciences of the Republic of Kazakhstan; s.dosaeva@mail.ru; <https://orcid.org/0000-0002-6011-5198>

#### **REFERENCES**

[1] Arpentieva M.R., Kassymova G.K., Lavrinenko S.V., Tyumaseva Z.I., Valeeva G.V., Kenzhaliyev O.B., Triyono M.B., Duvalina O.N., Kosov A.V., Dossayeva S.K. Environmental education in the system of global and additional education // Bulletin of National academy of sciences of the Republic of Kazakhstan. ISSN 1991-3494. 2019. Vol. 3, N 379. P. 158-168. <https://doi.org/10.32014/2019.2518-1467.82>

[2] Arpentieva M.R., Duvalina O.N., Gorelova I.V. (2017) Intersubjective management in aerospace engineering // In: Borikov V., Uchaikin S., Baranov P., Ivanova V., Dolgih A. and Ignatovskaya A. (Eds.) 5th International Forum for Young Scientists "Space Engineering" MATEC Web of Conferences. 12 – 14 April 2017. Tomsk: National Instruments Russia Corporation: 01002. <https://doi.org/10.1051/mateconf/201710201002>

[3] Arpentieva M.R., Kirichkova M.E., Kosov A.V., Feshchenko E.M., Golubeva G.F. The role of additional and alternative education in the self-development of children and adolescents // Advances in Social Science Education and Humanities Research (ASSEHR). Paris, France, Amsterdam, Netherlands: AtlantisPress, 2018, 198, 154-160. <https://doi.org/10.2991/ictpfms-18.2018.27>

[4] Arpentieva M.R., Krasnoshechenko I.P., Kirichkova M.E., Zalavina T.Yu., Stepanova G.A. Psychological and pedagogical support for children's and teenager's self-development and education globalization // Advances in Social Science Education and Humanities Research (ASSEHR). Paris, France, Amsterdam, Netherlands: Atlantis Press, 2018, 198, 131-138. <https://doi.org/10.2991/ictpfms-18.2018.24>

[5] Arpentieva M.R. (2017). Foresight and dynamic abilities of enterprises. Y. Bogodistov, V. Wohlgemuth (eds.) European Journal of Management Issues. Dnipro, Ukraine, 25 (1) Special Issue Dynamic Capabilities of Firms, 10-17. DOI: 10.15421 / 191702

[6] Arpentieva M.R. (2018). Dynamic capabilities of enterprises and foresight technologies of development of industrial markets. Business strategies, 8 (52), 30-36. DOI: 10.17747 / 2311 - 7184 - 2018 - 8 - 30 - 36. <https://doi.org/10.17747/2311-7184-2018-8-30-36>

[7] Barber M., Donnelly K., Rizvi S. (2013). On the eve of the avalanche. Higher education and the upcoming revolution. Education issues, 3, 152-231.

[8] Bogomolova E.A., Menshikov P.V., Arpentieva M.R., Gorelova I.V., Zalavina T.Yu. The ability to learn and ability to teach: learning and teaching styles // Advances in Social Science Education and Humanities Research или European Proceedings



of Social and Behavioural Sciences (ASSEHR). Paris, France, Amsterdam, Netherlands: AtlantisPress, 2018, 198, 146-153. <https://doi.org/10.2991/ictppfms-18.2018.26>

[9] Burov V.V. (comp.), Agamirzyan, I., Belousov D., Kuznetsov E., Zotov A., Danilin I., Kholkin D., Steinmyuller A., Steinmyuller K., Proidakov E., Lukin E., Raevsky A., Lukianenko S., Pervushin A. (2016). Call 2035. Moscow: Olimp – Business Publishing House.

[10] DaSilva C. M., Trkman P., Desouza K., Lindič J. (2013). Disruptive technologies: a business model perspective on cloud computing // *Technology Analysis & Strategic Management*, 25 (10), 1161-1173. <https://doi.org/10.1080/09537325.2013.843661>

[11] Dudley G., Banister D., Schwanen T. (2017). The Rise of Uber and Regulating the Disruptive Innovator. *The Political Quarterly*, 88 (3), 492-499. <https://doi.org/10.1111/1467-923X.12373>

[12] Evzrezov D.V., Mayer B.O. (2013). Foresight and Russian education: ontological analysis // *Professional education in the modern world*, 3 (10), 17-28.

[13] Kassymova K. G., Tyumaseva Z. I., Valeeva G. V., Lavrinenko S. V., Arpentieva M. R., Kenzhaliyev B. K., Kosherbayeva A. N., Kosov A. V., Duvalina O.N., Dossayeva S.K. Integrative model of student and teacher stress coping: the correction of relations in educational, professional and personal interaction // *Bulletin of National Academy of Sciences of the Republic of Kazakhstan*. ISSN 1991-3494. 2019. Vol. 3, N 379. P. 169-179. <https://doi.org/10.32014/2019.2518-1467.83>

[14] Kassymova G.K., Arpentieva M.R., Kosherbayeva A.N., Triyono M.B., Sangilbayev S.O., Kenzhaliyev B.K. (2019). Science, education & cognitive competence based on e-learning // *Bulletin of the National academy of sciences of the Republic of Kazakhstan*. 2019, (1), 269-278. <https://doi.org/10.32014/2019.2518-1467.31>

[15] Kassymova G.K., Tokar O.V., Tashcheva A.I., Slepukhina G.V., Gridneva S.V., Bazhenova N.G., Shpakovskaya and Arpentieva M.R. Impact of stress on creative human resources and psychological counseling in crises // *International Journal of Education and Information Technologies*. 2019, 13, 26-32.

[16] Kassymova G.K., Stepanova G.A., Stepanova O.P., Menshikov P.V., Arpentieva M.R., Merezhnikov A.P., Kunakovskaya L.A. Self-development management // *In International Journal of Education and Information Technologies*. 2018, 12, 171-176.

[17] Kostenko I.P. (2013). The problem of the quality of mathematical education in the light of historical retrospectives. Krasnodar: Rostov State university of the ways of communication.

[18] Kryukov S.V. (2010). Foresight: from Forecast to the Formation of the Future // *Space of Economy*. 3-2, 7-17.

[19] Kulesh V.A. (2015). The concept of dynamic abilities in the strategic choice of the company [Electronic resource]. *Scientific journal of the Kuban State Agrarian University*. 108, 1164-1182.

[20] Peskov D. (2016). What is a foresight of education [Electronic resource] // *Science and Technologies of Russia – STRF.RU* Retrieved from: [http://www.strf.ru/material.aspx?CatalogId=354&d\\_no=72965##.WcgOQLJJBIV](http://www.strf.ru/material.aspx?CatalogId=354&d_no=72965##.WcgOQLJJBIV)

[21] SEDeC (2013a). The future of education: a global agenda. A report prepared by the Agency for Strategic Initiatives, the Moscow School of Management Skolkovo and Skoltech as part of the global foresight of education until 2035. [Electronic resource]. Project website: [edu2035.org](http://edu2035.org). Foresight map: [map.edu2035.org](http://map.edu2035.org). Retrieved from: [edu2035.org/pdf/GEF.Agenda\\_ru.pdf](http://edu2035.org/pdf/GEF.Agenda_ru.pdf)

[22] SEDeC (2013b). The era of "greenfield" in education. Research by the Center for Educational Developments of the Moscow School of Management Skolkovo (SEDeC), September. Retrieved from: [http://www.skolkovo.ru/public/media/documents/research/education\\_10\\_10\\_13.pdf](http://www.skolkovo.ru/public/media/documents/research/education_10_10_13.pdf)

[23] Sharon T. (2016). The Googlization of health research: from disruptive innovation to disruptive ethics // *Personalized Medicine*. 13 (6), 563-574. <https://doi.org/10.2217/pme-2016-0057>

[24] Stepanova G.A. Tashcheva A.I. Stepanova O.P. Kassymova G.K., Tokar O.V., Menshikov P.V., Arpentieva M.R. The problem of management and implementation of innovative models of network interaction in inclusive education of persons with disabilities // *International Journal of Education and Information Technologies*. 2018, 12, 156-162

[25] Stepanova G.A. Tashcheva A.I., Markova T.A., Shpakovskaya E.U., Arpentieva M.R., Bazhenova N.G., Tokar O.V., Kirichkova M.E. Value-notional relations of people with persons with disabilities in additional and alternative education and in other inclusive social practices // *International Journal of Education and Information Technologies*. 2019, 13, 41-48.

[26] Stepanova O.P., Gridneva S.V., Menshikov P.V., Kassymova G.K., Tokar O.V., Merezhnikov A.P., Arpentieva M.R. Value-motivational sphere and deviant behavior // *International Journal of Education and Information Technologies*. 2018, 12, P 142-148.

[27] Tis D., Pisano G., Shuen E. (2003). Dynamic Abilities of a Firm and Strategic Management // *Bulletin of St. Petersburg State University. Ser. "Management"*. 4, 133-184.

[28] Van Esler M. (2016). Not Yet the Post – TV Era: Network and MVPD Adaptation to Emergent Distribution Technologies. *Media and Communication*, 4 (3), 131. <https://doi.org/10.17645/mac.v4i3.548>

[29] Von der Gracht H., Vennemann R., Darkow I.–L. (2010). Corporate foresight and innovation management: A portfolio – approach in evaluating organizational development // *Futures: Journal of Policy Planning and Futures Studies*, 42 (4), 380-393. <https://doi.org/10.1016/j.futures.2009.11.023>

[30] Zhukova G.K. (2016). The saga of foresight or idols of Global Education in Russian education // VIII meeting of the Youth Discussion Club of the Russian Institute for Strategic Studies: "Foreign Impact on the Education Sector in Russia" September 30. St. Petersburg: RIAC Publ., Retrieved from: <http://katyusha.org/view?id=3365>