MODERN PEDAGOGICAL EDUCATION IN THE CONDITIONS OF BLENDED LEARNING: FOREIGN EXPERIENCE

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ABSTRACT: The present study is theoretical and aims to explore and critically evaluate the experience of blended learning demonstrated by countries that have attained a high level of education. Using a complex of theoretical methods, the study provides an analysis of the concept of blended learning, which combines both the traditional forms of education, the methods of distance learning, and innovative e-learning technologies. The models of blended learning found to be most successful in practical implementation are analyzed. The provided examples and recommendations for organizing blended learning in pedagogical education in foreign countries and a discussion of the challenges of its implementation and the possibilities of overcoming them can be useful in the use of blended learning in the Russian system of education, considering the domestic specifics. The study results suggest that the effectiveness of pedagogical education can be ensured by means of a combined implementation of different forms of e-learning and traditional learning – through blended learning.

KEYWORDS: Pedagogical education. Blended learning. Distance Technologies. Internationalization.

RESUMO: O presente estudo é teórico e visa explorar e avaliar criticamente a experiência de aprendizagem mista demonstrada por países do mundo que alcançaram um alto nível de educação. Usando um complexo de métodos teóricos, o estudo fornece uma análise do conceito de aprendizagem mista, que combina as formas tradicionais de educação, os métodos de ensino à distância e tecnologias inovadoras de e-learning. Os modelos de aprendizagem mista
considerados mais bem-sucedidos na implementação prática são analisados. Os exemplos fornecidos e recomendações para organizar a aprendizagem combinada na educação pedagógica em países estrangeiros e uma discussão dos desafios de sua implementação e as possibilidades de superá-los podem ser úteis no uso da aprendizagem combinada no sistema de educação russo, levando em consideração as especificidades domésticas. Os resultados do estudo sugerem que a eficácia da educação pedagógica pode ser assegurada por meio de uma implementação combinada de diferentes formas de e-learning e aprendizagem tradicional - através da aprendizagem mista.

**PALAVRAS-CHAVE:** Educação pedagógica. Aprendizagem mista. Tecnologias a distância. Internacionalização.

**RESUMEN:** El presente estudio es teórico y tiene como objetivo explorar y evaluar críticamente la experiencia de aprendizaje mixto demostrada por países del mundo que han alcanzado un alto nivel de educación. Utilizando un complejo de métodos teóricos, el estudio proporciona un análisis del concepto de aprendizaje combinado, que combina las formas tradicionales de educación, los métodos de aprendizaje a distancia y las tecnologías innovadoras de aprendizaje electrónico. Se analizan los modelos de aprendizaje mixto que resultaron más exitosos en la implementación práctica. Los ejemplos y recomendaciones proporcionados para organizar el aprendizaje combinado en la educación pedagógica en países extranjeros y una discusión de los desafíos de su implementación y las posibilidades de superarlos pueden ser útiles en el uso del aprendizaje combinado en el sistema educativo ruso, teniendo en cuenta los detalles domésticos. Los resultados del estudio sugieren que la eficacia de la educación pedagógica puede garantizarse mediante la implementación combinada de diferentes formas de aprendizaje electrónico y aprendizaje tradicional, a través del aprendizaje combinado.

**PALABRAS CLAVE:** Educación pedagógica. Aprendizaje mixto. Tecnologías a distancia. Internacionalización.

**Introduction**

At the current stage of development of pedagogical science in Russia and other countries, of relevance are the issues of education quality, its assessment, and the ways and means of its improvement (BARBER; MURSHED, 2008; BORISENKOV, 2015). Therefore, the focus of attention is drawn to pedagogical education, the problems of its modernization, and the training of teachers, which largely determines learning outcomes. Numerous international studies devoted to the problems and comparison of the quality of education in different educational systems analyze the factors determining the quality of education and the opportunities for perfecting pedagogical education and attaining a high level of education in the countries leading in terms of education (Finland, Scandinavian countries, Hong Kong, South Korea, Singapore). An additional challenge for most world countries and their education
systems are extreme situations, such as the pandemic, which bring to the fore the problem of blended learning and the use of electronic learning forms and technologies in teacher training, as well as contributes to various transformations (organizational, content, and management) both in the provided programs and courses and in the very role and function of teachers (ABRAMOVA, 2014; ALAMMARY; SHEARD; CARBONE, 2014; BOGORYAD; LYSUNETS, 2014; EL-MOWAFY; INTERFAX EDUCATION, 2020; KUHN; SNOW, 2013; MIJARES, 2012; RICHARDS, 2012; SHIRSHOVA, 2014; SHITOVA, 2011). The implementation of electronic technologies is carried out through creating various Internet portals for teachers, trainers, and volunteers (South Korea, Turkey, Finland) and their distance learning (South Korea, PRC) and through the use of virtual platforms in informal teaching communities (South Korea). The study of the experience of the leading countries and the consideration of comparative research in this sphere most definitely require separate analysis and comprehension. The results and conclusions of such research will be of great use for enriching pedagogical science and comparativistics, particularly for their practical use in the work of education systems in other countries.

Study goals and objectives

In the present work, we intend to study and summarize the experience of countries whose education systems have achieved great results in the sphere of pedagogical education and determine the effective ways and means of successful training of teachers, whose work determines the learning outcomes and achievements of their students. Of special interest are the forms and means of e-learning and their combination with traditional methods of training, the challenges in the implementation of distance learning, the opportunities for overcoming them, the assessment of the quality of teachers’ work under extreme circumstances, and changes in the programs and courses for training teachers and university professors.

Literature review

Analysis of scientific sources on the examined problem and the research conducted in the sphere of pedagogical education indicates that the learning outcomes of school and university graduates, future professional workers, is directly contingent on the level of their education which, in turn, depends on how effective the system of training of pedagogical personnel and their continuing professional improvement is. The problems of blended learning
and its use in training teachers and university professors have been in the center of attention of researchers and practitioners in the past several decades (CLARC, 2003; DUDNEY; HOCKLY, 2007; ZHELNOVA, 2018). According to Russian and Western researchers, blended learning refers to educational process organization technologies that use both traditional and distance forms of learning. Blended learning is conceptually developed within the framework of the theory of uniting the “full-time system” and e-learning, digital didactics, and the use of ICT and modern means of learning. Russian scientist I. B. Gosudarev (2015, p. 180) proposes to define blended learning as “a combination of the traditional forms of in-classroom learning that alternates some elements of e-learning with the use of specialized information technologies, such as computer graphics, interactive elements, and audio and video content”. Bielawski and Metcalf (2003) view the educational process in blended learning as successively interchanging traditional and electronic forms of learning that alternate over time. In Russian education, the terms “electronic learning” and “distance learning” are synonymous, while in foreign research, electronic learning is used to refer to the organization of educational activity with the use of information databases and their processing, as well as technical means and information and telecommunication networks. An important emphasis is put on the interaction between participants in the educational process. The principles of blended learning indicated by specialists include successiveness, demonstrativeness, and practical application. In publications and scientific discourse on the topic, it is noted that in the modern conditions, there is increased interest in e-learning and its use in the modernization of pedagogical education, which is primarily due to its ability to provide fundamentally new opportunities that lie in the access to educational resources and technologies. Analysis of literature on the problem of implementing distance learning and the utilization of digital technology also allows researchers to reveal certain drawbacks of this type of learning indicated by scientists and practitioners. In particular, these include the following: limitation or complete lack of the communicative component of learning; an actual possibility of misunderstanding and misinterpretation of the materials students receive; insufficient level of self-learning and lack of self-organization skills (LEGAN; YATSEVICH, 2014).

Literature review allows identifying the reasons for resorting to blended learning and substantiate the increased interest in it in the past decade. The aforementioned reasons are believed to be associated with the spread and optimization of business processes since the end of the 20th century, and the opportunities for quick and efficient information exchange through the Internet. Neuroscience research has also contributed to the development of e-learning. The results of scientific studies on the brain, publications of professor S. Dickelman, and studies by
Wenbiao Gang (2008-2019; 2014) and specialists from Stanford University comparing the results of traditional, online, and blended learning give reasons for researchers to conclude that the effect of blended learning is significantly higher than of each of the types separately (MEANS et al., 2010). Without a doubt, the pandemic has served as a stimulating factor in the development of blended learning as an example of extreme situations and the challenges of globalization (GRACHEVA et al., 2020; IVANOV; IVANOVA, 2016; KLEYMENOV, 2019).

Methods

To solve the research objectives, the study uses a set of general theoretic and pedagogical science methods: the comparative and explanatory method, the evaluation and systematization of materials on the studied topic, as well as the methods of pedagogical comparativistics focused on the study of blended learning in the countries that have achieved great success in this sphere. The methodological foundations of the study are based on the provisions of foreign (MULLER, 2019; POLLOCK; JEFFERSON, 2019) and Russian (BOGORYAD; LYSUNETS, 2014; BORISENKOV, 2015; GOSUDAREV, 2015; IVANOV; IVANOVA, 2016; TAGUNOVA et al., 2019) researchers in comparative research methodology. In this regard, it is necessary to consider the opinion of specialists in this sphere (MULLER, 2019) who note that quantitative parameters and national statistics are quite often but with little success subjected to cross-country comparison, which is why they are not always able to contribute to changes in education systems (MULLER, 2019; POLLOCK; JEFFERSON, 2019; TAGUNOVA et al., 2019).

Results

In the course of a theoretical study using the methods corresponding to its nature, such as comparative analysis and the evaluation, systematization, and interpretation of materials, we analyzed scientific sources and examined empirical research on the problem of modernization of pedagogical education and the introduction of blended learning in it, particularly under extreme conditions (the pandemic). The study and comprehension of the state of the problem and the results of international studies of the achievements of pedagogical education in the countries leading in this sphere in various regions of the planet (Hong Kong, Korea, Singapore, Finland, Sweden etc.) allows stating that despite quite prominent differences in cultural and historical traditions, the leading countries have much in common in terms of the direction of
their education policy in general and the selection and use of certain mechanisms that ensure the successful modernization and development of the systems of pedagogical training. Given the common tendency of the education systems in these countries to focus on liberal values at the level of the goals of education, they are also universally characterized by a strict system of selection of future teachers and university professors, the presence of a Bachelor degree or a higher level of education (university education), mentorship, the stimulation of teachers’ motivation, which fosters their desire to improve their qualification, the striving for lifelong learning, filtering out weaker teachers who do not perform their professional duties well, and the use of a combination of traditional national practices and innovative world methods in training teachers. Analyzing the effective models utilized, for example, by the national systems for professional growth and development of teachers and professors in different countries that successfully address this problem, we detected common features in them, for example, similar approaches to modernization, which allow these countries to achieve significant results. In the case of Hong Kong and Finland, these similarities include strictly perfected and compulsory selection criteria for pedagogical specialties, increased load of independent study and practical work for students and teachers, a greater role of the research component in the respective educational programs, and the observance and consideration of the requests of particular groups of students and teachers who are improving their qualifications, the use of innovative blended learning technologies in the system of continuing professional training of teachers and professors, and the development of specialized motivation mechanisms corresponding to the national historical and cultural specifics of the country. Let us more closely consider the experience of Finland. To a certain extent, Finland with its education system is an example to other countries: the assessment of the country’s educational results by international programs indicates that Finland is a leading country alongside Singapore and Hong Kong. The key characteristics of education in Finland are its quality, effectiveness, fairness, internationalization, and strong connections between all of its segments with a smooth transition from one to another, from kindergarten to university, which is considered as an instrument for ensuring social equality in terms of culture, territory, and content. The entirety of teacher training in Finland is carried out by universities, teachers are required to have a Master’s degree at least. Various models of retraining of teachers and their professional and personal self-improvement are also provided based on universities. In the course of our research, we identified the most successful cross-cultural practices that are implemented in the leading countries and contribute to the professional growth of pedagogical workers, the development of their scientific potential, and the formation of promising universal competencies: maker.
practices, mentorship, professional and multi-professional communication on social media for
the exchange of experience, internships, open lessons, masterclasses, short-term and long-term
courses, etc., as well as blended learning techniques.

In the organization of blended learning in the education systems of the aforementioned
countries, several approaches can be distinguished. The first approach involves understanding
blended learning as a certain formal of educational courses, an active method incorporated into
traditional learning, in which the main material is presented in a distance course and students
work independently to consolidate and train the educational material of in-person lessons
(Finland, Hong Kong). In the second approach, blended learning is viewed as a model of using
the distributed informational and educational resources in full-time learning. This system
provides more opportunities to account for the individual needs of students (Sweden, Korea,
Singapore). Meanwhile, practically all parties agree on the great potential of blended learning
in improving education quality and students’ learning outcomes and identify the following
characteristics of blended learning:

- a transformation of the relationship between teachers and students, a change in the role
  of teachers who blended learning forces to perform several interrelated roles simultaneously –
  the roles of a tutor, an assistant in the choice of the educational trajectory, a consultant and
  organizer of students’ independent cognitive activity and the planning of their individual
  learning trajectories, and an organizer of students’ group work (projects, seminars, disputes,
  discussions, etc.),

- a change in the functions of a teacher who performs several functions at once –
  presenting the educational material, organizing the educational process, giving lectures and
  online consultations.

Blended learning causes transformation not only in the content of education but also in
its organization – educational programs become more flexible and allow students to select the
necessary modules, a comfortable pace, and the time and place of studying, as well as to be
independent in planning and controlling their education and determining the pace and volume
of the studied materials.

Analysis of foreign publications indicates that the problem of improving the quality of
teaching and teachers’ professional growth continues to be at the center of researchers’ attention
and scientific discussions. From the point of the perspectives of our study, we consider the
following directions to be productive: continuing teacher education in Finland – its approaches
and practices of implementation; the transformation of the teacher professional development
model in Hong Kong: teacher professionalism in the Asian context; managerialist approach in
the teacher performance evaluation system in the experience of Hong Kong and Singapore; effective practices of the leading countries and their adaptation and application in other countries with regard to their cultural-historical and national characteristics. Meanwhile, it should be borne in mind that the problem of terminology continues to be one of the most critical as the lack of a solution to it gives rise to certain difficulties in the study of the problem in different countries. The issue lies in the fact that, for instance, in Russia, the concept of “advanced qualification” is more habitual while English-language literature widely uses the terms “professional development” and “teacher professional development” (“teacher development”, “teacher PD”) and the Singapore and Hong Kong model for professional development and growth of teachers uses the term “professional growth” (MATVEEVA, 2017).

Discussion

The conducted study demonstrates that in the modern conditions of global challenges to education, the most critical are the issues of its modernization and the improvement of its effectiveness and quality, which largely depend on the combination of traditional forms of learning with the newest electronic ones. Under extreme conditions, such as the threat of the spread of the coronavirus infection, most colleges and universities in Russia and abroad were forced to transition to distance learning. Analysis of the practice of educational institutions under the pandemic conditions shows that most of them was completely unready for this type of work, as well as that the urgent transfer of learning to the distance mode significantly differs from its traditional use in the usual proper online learning based on massive open online courses. The entire educational process had to be radically transformed in the shortest time possible, which resulted in the need to transfer all in-person activities (lectures and practical and laboratory lessons), given the presence of their virtual analogs, into the online environment. The teachers were forced to organize the educational process based on distance learning technologies, various ways of delivering digital content, and the means of communication. Practice shows that prior to this, most teachers assessed their level of proficiency in distance technology as weak. In their professional activities, teachers did not use a lot of remote video communication services for webinars, video conferencing, discussions, and debates and were not involved in their organization and design. Technical staff was not always to provide the necessary support. The stressful situation also played a negative role in the organization of new forms of learning. What else did the extreme situation of the pandemic reveal and what is the subject of discussion in the scientific and teaching community today? The analytical materials
of discussions indicate that the most important are the issues of clarifying the terminology, revealing the essence of the concepts concerning distance and online learning, and evaluating the results of their use in extreme situations.

For instance, the term “online-learning” is always used to refer to the lack of in-person contact between teachers and their students, which leads to the substitution of terms. For this reason, it is crucial to determine and understand the difference between online learning and the educational technologies that were used in the conditions of the forced urgent transition of educational institutions to distance learning. Other subjects of discussion include the results of online learning, comparing them with the results of traditional in-person learning, and answering the questions of what determines the effectiveness of online learning as an educational technology, what is its difference from distance learning under extreme conditions, and what is the correct term for the learning in the extreme conditions of the pandemic – online-learning or distance learning under extreme conditions. The analysis of the differences between online learning and distance learning allows concluding that in the extreme conditions of the pandemic, it is more correct to use the term “distance learning in an extreme situation”. In the center of discussion are also the issues of assessing the effectiveness of distance learning in extreme conditions, the appropriateness of comparing them with the results of traditional full-time learning, and such an indicator in the evaluation as success considered from the perspective of students themselves or the viewpoint of their teachers. Naturally, these indicators will differ. For teachers, the most important indicator is the actual result of teaching, while for students, aside from academic performance, it is their motivation and activity in learning. University administration and the heads of educational institutions measure the success and quality of education in percent – the share of students who have completed their education, teachers’ workload and performance, and the ratio between the volume of spent resources and the results. These are the typical parameters of traditional assessment of the effectiveness of online learning or distance education technologies in regular conditions of the work of colleges and universities. However, under the extreme conditions of a drastic reformatting of the educational process, attention should be paid to other evaluation parameters and criteria. It is suggested to consider the assessment of the context of changes, their feasibility and cost-effectiveness, and the assessment of the relationship between the process of implementation of changes and their outcomes. In this assessment, an important role belongs to the analysis of the prerequisites and the course of the process, and its effectiveness can be judged by the ratio of the results and the spent resources necessarily accounting for the urgency of the set tasks.
Conclusion

Thus, blended learning has colossal potential given the competent use of the constantly advancing digital technologies for the development and modernization of pedagogical education and the improvement of the quality of training of students, teachers, and university professors. The success of the national education systems of the countries leading in the sphere of education convincingly shows that the position of contrasting distance (electronic) and traditional face-to-face forms of education is incorrect. Both types of learning have numerous advantages and, when they are used correctly and the drawbacks of the organization of blended learning are controlled, blended learning becomes a major factor in the successful modernization of pedagogical education. To ensure optimal implementation of blended learning, it is necessary to preserve the general principles that lie at the basis of the traditional educational process and incorporate the elements of e-learning (electronic educational resources and information and telecommunication technologies) in them. Meanwhile, the combination of technologies also leads to transformations at the levels of both individual courses and disciplines and the content of educational programs, which can result in the role and functions of a teacher changing. Thus, it is no coincidence that the emphasis is put on training teachers and professors: blended learning directly implies the development of their scientific potential and the development of universal promising competencies in their professional activities, which provides for the transfer of these competencies to their students.

ACKNOWLEDGMENTS: This research is a part of the state task for 2021 of the Ministry of education of the Russian Federation carried out by The Institute for Strategy of Education Development of the Russian Academy of Education: “The information-analytical, scientific-methodological and expert support for the realization of the potential of the world experience of modern pedagogical education in the conditions of blended learning” (GZ: No. 073-00007-21-01).

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How to reference this article

SHAPOSHNIKOVA, T. D.; NAYDENOVA, N. N.; SUKHIN, I. G.; VORONTSOVA, E. A.; MYASNIKOV, V. A. Modern pedagogical education in the conditions of blended learning: Foreign experience. Revista on line de Política e Gestão Educacional, Araraquara, v. 25, n. esp. 5, p. 3315-3326, Dec. 2021. e-ISSN:1519-9029. DOI: https://doi.org/10.22633/rpge.v25iesp.5.16042

Submitted: 13/03/2021
Required revisions: 23/07/2021
Approved: 19/11/2021
Published: 30/12/2021

Processing and editing by Editora Ibero-Americana de Educação - EIAE. Correction, formating, standardization and translation.