

УДК 378:37.012.2

LOZITSKY Vyacheslav L., PhD in Ped. Sc., Associate Professor,
Associate Professor of Department of Economics and Business
Polessky State University, Pinsk, Republic of Belarus;
Doctoral Student of the Scientific and Methodological Institution
«National Institute of Education» of the Ministry of Education
of the Republic of Belarus
E-mail: bakalaur@yandex.ru



Received 23 March 2023

DETERMINANTS OF ENSURING CONTINUITY IN THE INFORMATION AND EDUCATIONAL ENVIRONMENT OF GENERAL SECONDARY AND HIGHER EDUCATION SYSTEMS IN THE REPUBLIC OF BELARUS¹

The article is devoted to the study of a set of issues of ensuring continuity in the conditions of the functioning of the information and educational environment at the systemic levels of general secondary and higher education in the Republic of Belarus. Determining factors have been identified that allow us to consider theoretical and methodological approaches in considering the phenomenological essence of a single information and educational environment.

Keywords: *digitalization of society, the education system, digital transformation of education, information and communication space, information and educational environment, continuity, educational activities.*

В.Л. ЛОЗИЦКИЙ, канд. пед. наук, доцент,
доцент кафедры экономики и бизнеса
Полесский государственный университет, г. Пинск, Республика Беларусь;
докторант научно-методического учреждения «Национальный институт образования»
Министерства образования Республики Беларусь
E-mail: bakalaur@yandex.ru

ДЕТЕРМИНАНТЫ ОБЕСПЕЧЕНИЯ ПРЕЕМСТВЕННОСТИ В УСЛОВИЯХ ИНФОРМАЦИОННО-ОБРАЗОВАТЕЛЬНОЙ СРЕДЫ СИСТЕМ ОБЩЕГО СРЕДНЕГО И ВЫСШЕГО ОБРАЗОВАНИЯ В РЕСПУБЛИКЕ БЕЛАРУСЬ

Статья посвящена изучению комплекса вопросов обеспечения преемственности в условиях функционирования информационно-образовательной среды на системных уровнях общего среднего и высшего образования в Республике Беларусь. Определены детерминирующие факторы, которые позволяют рассматривать теоретико-методологические подходы в рассмотрении феноменологической сущности единой информационно-образовательной среды.

Ключевые слова: *цифровизация общества, система образования, цифровая трансформация образования, информационно-коммуникационное пространство, информационно-образовательная среда, преемственность, образовательная деятельность.*

¹Статья публикуется в авторской редакции.

Introduction. Qualitative changes taking place in modern society of the era of digitalization cannot but affect the sphere of education, which determines the vector of its development. Modernization changes reflect the desire to effectively ensure the quality of education, develop and implement effective training models at all levels of the education system in the context of the integration of innovative technologies and high-tech solutions into the educational process. In this aspect, it is clear that attention is paid to the classical principle of continuity for pedagogical theory and practice in the context of the implementation of the development paradigm under the slogan «Education through life». Continuity, as well as the mechanism and tools for its implementation, should be considered in a systematic sense, taking into account those determinants that determine both the process itself and the peculiarities of ensuring continuity in the context of socio-cultural changes in the Republic of Belarus. The definition of such determinants is an integral part of the study of a set of issues on the issue of ensuring continuity in the conditions of the formation of a single republican information and educational environment (IEE) in our country, taking into account the specifics of the development of this process in the post-soviet space.

Pedagogical science has accumulated a certain experience of theoretical and practical consideration of the implementation of the principle of continuity [1–8]. Within the framework of scientific reflection, not only the concretization of the terminological apparatus and the essential characteristics of the studied phenomenon was carried out, but also the stages of evolution of theoretical and methodological approaches existing in pedagogical science in the study of the problem of continuity, taking into account the formation and development of the system of continuous education in the post-Soviet space, were considered. Researchers substantiated the feasibility of implementing the principle of continuity in didactics and education as components of a holistic pedagogical process.

At the same time, a comparative analysis of existing dissertation studies [1–5; 7] allows us to conclude that the scientific approaches substantiated by the authors to understand the phenomenological essence of continuity as a phenomenon do not take into account the determining factors that mature in the new conditions of the progressive development of the education sys-

tem and its digital transformation at a qualitatively new stage in the formation of society of the era of digitalization. Decisive and dynamic social changes, as well as their deterministic influence on the processes taking place in the educational sphere of modern society, actualize the urgent need to continue a deep and systematic study of the declared problem.

Main part. The determinants of ensuring continuity in the information and educational environment (IEE) of the systems of general secondary and higher education are the conditions, reasons and factors that determine the effective implementation of the process and the qualitative functioning of the system organization of education, taking into account its specifics and characteristics. As one of the determining factors determining the expediency of considering a set of issues of ensuring continuity in the conditions of IEE systems of general secondary and higher education in the Republic of Belarus, we have highlighted the dynamics of the pace of deployment of the processes of digital transformation of modern society.

Manifested at the macro level in almost all spheres of society's life, they result in qualitative changes in the system of education technologized on an ever larger scale. High-tech tools in the form of developments of robotics, artificial and hybrid intelligence, augmented and virtual reality are used in the organization and implementation of educational activities at various levels when transferring the interaction of participating subjects (trainee - educational) to virtual space. The technical-technological and didactic potential of such innovative technical solutions, implemented in the conditions of mobile, network and distance learning, is a powerful basis for intensifying changes in the information and communication space, affecting directly the qualitative characteristics and functionality of the educational sphere.

We are witnessing the deployment in modern society of the fourth industrial revolution and Industry 4.0, including in relations with the field of education. The fourth industrial revolution with the transition to a qualitatively new technological structure and decisive structural changes in the labor market is a determining factor in changing the needs of society and the state, and, therefore, the orientation of modern university to effective training of specialists, the competencies of which determine their ability for systemic cognitive and research activities, independent

and responsible decision-making in situations of uncertainty and choice, readiness to work at a high professional level in a high-tech economy [9, p. 90].

Specialists – graduates of higher education institutions must have formed competencies that allow them to successfully compete in the modern labor market, effectively solve emerging professional problems and implement target settings in the process of socialization. In this sense, the solution of the problem of ensuring the continuity of the levels of general secondary and higher education in the Republic of Belarus is directly related to the most effective functioning of the of higher education institutions, the evolution of the institutional organization of which we also classify as determinants. It is important to determine the model within the framework of which the preparation of the future graduate is carried out, taking into account the dynamics of digital transformation processes in education at all levels.

The modern university of research and entrepreneurial type (model 3.0), as well as the social and entrepreneurial university (model 4.0) are interested in the high level training of applicants applying for the successful passage of the competition for admission to the number of their students. Qualitative continuity assurance focuses on the formation of applicants and the further development of such personal increments among students, which, being enshrined in their social and professional experience, will become the basis for competencies based not only on the knowledge component, but also on effective activity qualities of active interaction, entrepreneurship and creative style of thinking. The modern university should not deal with the problems associated with the elimination of gaps in the knowledge and activity sphere of first-year students who are absolutely not adapted to the new model of organization of training for them, in which a significant share of educational activities falls not only on activities in the team or creative group, but also on independent search, research project activities.

Continuity is not ensured largely due to the lack of consistency in content, methods and means of instruction at the level of general secondary and higher education, as well as due to the low-level functional literacy of students. Functional literacy in education means the integrative readiness of the individual for effective diverse competent educational activities, the

ability to solve professional problems in various fields. Functional literacy manifested in various fields is one of the grounds for the formation and development of the information culture of the individual. Its components are the abilities associated with the effective operation of information, its sources and high-tech tools when using modern information technologies to solve cognitive, professional and other problems in the developing information and communication space. In such a relationship, an important determinant of ensuring continuity is the effective use of the technical, technological and didactic potential of the IOS of the educational institution, as well as the formed Republican Information and Educational Environment (RIEE).

The technical, technological and didactic potential of the information and educational environment is understood by us as a set of capabilities of the system components of the environment, which, taking into account the necessary organizational and methodological conditions and the effective use of technical solutions and didactic tools, functionally achieve the determined goals of the pedagogical process [10, p. 9]. RIEE as a set of state automated information systems (resources) in the field of education, ensures the interaction of state bodies and organizations, educational institutions and other subjects of educational relations and the satisfaction of their information needs [11, p. 7] through the use of our noted environmental potential. This provision is enshrined in the Code of the Republic of Belarus on Education [11], as well as in the Concept of Digital Transformation of Processes in the Education System of the Republic of Belarus for 2019–2025. [12]. The adoption and ensuring the functioning of these regulatory and legal acts is also determined by us as one of the determining factors for the implementation of the continuity of general secondary and higher education in the context of IEE.

Conclusion. The determinants of ensuring continuity in the information and educational environment of the systems of general secondary and higher education are the conditions, reasons and factors that determine the effective implementation of the process and the qualitative functioning of the system organization of education, taking into account its specifics and characteristics. As such, we determine:

- digitalization of society and high technology of production;

- the demand for the labor market in highly qualified specialists adapted to the needs of high-tech production;

- digital transformation of education in the context of the development of information and communication space and institutional transformation of systemic elements of education;

- the availability of theoretical developments, as well as the development of pedagogical practice and experience in ensuring interlevel continuity of education in the Republic of Belarus and in the post-soviet space;

- availability of regulatory support for the continuity process in education.

The factors identified by us that determine the continuity in the information and educational environment of the systems of general secondary and higher education in the Republic of Belarus are in close dialectical relationship with each other. Their understanding allows not only to assess the very logic of procedural-activity and qualitative evolution of the studied phenomenon, its internal and external causal relationships, but also development prospects in the aspect of scientific forecasting. Consideration of the proposed generalizations is important due to its practical orientation to justify the priority areas of the topic of scientific research announced by us and the further implementation of deep scientific reflection.

References

1. Arkhipova S.V. *Preemstvennost' v obrazovanii: sotsiologicheskii analiz* [Continuity in education: sociological analysis]. Abstract of Ph. D. thesis. Ekaterinburg, 2009, 19 p. (In Russian)
2. Oreschkina A.K. *Metodologicheskiye osnovy preemstvennosti obrazovatel'nogo protsessa v sisteme nepreryvnogo obrazovaniya* [Methodological basis for the continuity of the educational process in the continuing education system]. Abstract of Ph. D. thesis. Moskau, 2009, 45 p. (In Russian)
3. Popov A.A. *Organizatsionno-pedagogicheskiye usloviya professional'no-orientirovannogo obrazovaniya v sisteme «shchkola – vuz»* [Organizational and pedagogical conditions of vocational-oriented education in the school-university system]. Abstract of Ph. D. thesis. Samara, 2017, 19 p. (In Russian)
4. Prosvirkin V.N. *Tehnologiya preemstvennosti v sisteme nepreryvnogo obrazovaniya* [Continuity technology in the continuing education system]. Abstract of Ph. D. thesis. Moskau, 2008, 39 p. (In Russian)
5. Ryagin S.N. *Preemstvennost' srednego obshchego i vysshchego professional'nogo obrazovaniya v usloviyah ih sistemnykh izmeneniy* [Continuity of secondary general and higher vocational education in the context of their systemic changes]. Abstract of Ph. D. thesis. Moskau, 2010, 43 p. (In Russian)
6. Semchenko I.V., Hodanovisch D.A., Schaykova S.V. *Sovremennoe obrazovanie: preemstvennost' i nepreryvnost' obrazovatel'noy sistemy «shkola – universitet – predpriyatie»* [Modern education: continuity and continuity of the educational system «school – university – enterprise»]. *Vysschaya shkola* [The higher school], 2021, no. 4, pp. 34–35 (In Russian)
7. Smantser A.P. *Teoriya i praktika realizatsii preemstvennosti v obuchenii shkol'nikov i studentov* [Theory and practice of implementing continuity in the education of schoolchildren and students]. Minsk, BGU Publ., 2011, 289 p. (In Russian)
8. Philatov L.O. *Razvitie preemstvennosti shchkol'nogo i vuzovskogo obrazovaniya v usloviyah vvedeniya profil'nogo obucheniya v starschem zvene sredney shchkoly* [Development of continuity of school and university education in the context of the introduction of specialized education in the senior level of secondary school]. Moskau, Binom Publ., 2005, 190 p. (In Russian)
9. Lozickiy V.L. *Problema preemstvennosti v usloviyah evolutsii institutsional'noy organizatsii uchrezdeniy vysshchego obrazovaniya* [The problem of continuity in the context of the evolution of the institutional organization of institutions of higher education]. *Materialy 14 mezhdunarodnoi nauchno-metodicheskoi konferentsii “Vysshchaya shkolal: problemy i perspektivy”* [Proc. 14th Int. Conf. “High school: challenges and perspectives”], Minsk, 2019, pp. 89–91. (In Russian)
10. Aksenshik N.V. *Dstantsionnoye obuchenie v vyschei shkole. Tehniko-tehnologicheskii i didakticheskii potentsial informatsionno-obrazovatel'noy sredy UVO* [Distance learning in higher education. Technical and technological and didactic potential of the information and educational environment of IHE]. *Narodnaya asveta* [The National education], 2020, no. 8, pp. 8–11. (In Russian)

11. *Kodeks Respubliki Belarus' ob obrazovanii* [Education code of the Republic of Belarus]. Minsk, Natsional'nyy tsentr pravovoy inphormatsii Respubliki Belarus' Publ., 2022, 512 p. (In Russian)
12. Kontsepsiya tsiphrovoy transphormatsii protsessov v sisteme obrazovaniya Respubliki Belarus' na 2019–2025 gg. [The concept of digital transformation of processes in the education system of the Republic of Belarus for 2019–2025]. *Gosudarstvennoye uschrejdeniye obrazovaniya «Minskiy gorodskoy institut razvitiya obrazovaniya»* [State Educational Institution «Minsk city institute for the development of education»]. (In Russian). Available at: <http://iso.minsk.edu.by/main.aspx?guid=34963> (accessed: 12.03.2023).

Список литературы

1. Архипова, С. В. Преемственность в образовании: социологический анализ : автореф. дис. ... канд. социол. наук : 22.00.06 / С. В. Архипова ; Уральский гос. ун-т им. А. М. Горького. – Екатеринбург, 2009. – 19 с.
2. Орешкина, А. К. Методологические основы преемственности образовательного процесса в системе непрерывного образования : автореф. дис. ... д-ра. пед. наук : 13.00.01 / А. К. Орешкина ; Ин-т теории и истории педагогики. – Москва, 2009. – 45 с.
3. Попов, А. А. Организационно-педагогические условия профессионально-ориентированного образования в системе «школа – вуз» : автореф. дис. ... канд. пед. наук : 13.00.01 / А.А. Попов ; Самарский гос. соц.-пед. ун-т. – Самара, 2017. – 19 с.
4. Просвиркин, В. Н. Технология преемственности в системе непрерывного образования : автореф. дис. ... д-ра. пед. наук : 13.00.01 / В. Н. Просвиркин ; Ин-т теории и истории педагогики. – Москва, 2008. – 39 с.
5. Рягин, С. Н. Преемственность среднего общего и высшего профессионального образования в условиях их системных изменений : автореф. дис. ... канд. пед. наук : 13.00.01 / С. Н. Рягин ; Ин-т управл-я обр-ем. – Москва, 2010. – 43 с.
6. Семченко, И. В. Современное образование: преемственность и непрерывность образовательной системы «школа – университет – предприятие» / И. В. Семченко, Д. А. Ходанович, С.В. Чайкова // *Выш. шк.* – 2021. – № 4. – С. 34–35.
7. Сманцер, А. П. Теория и практика реализации преемственности в обучении школьников и студентов / А. П. Сманцер. – Минск : БГУ, 2011. – 289 с.
8. Филатова, Л. О. Развитие преемственности школьного и вузовского образования в условиях введения профильного обучения в старшем звене средней школы / Л.О. Филатова. – М. : БИНОМ, 2005. – 190 с.
9. Лозицкий, В. Л. Проблема преемственности в условиях эволюции институциональной организации учреждений высшего образования / В.Л. Лозицкий // *Высшая школа: проблемы и перспективы : материалы 14-й междунар. науч.-метод. конф., Минск, 29 ноябр. 2019 г.* – Минск : Акад. управления при Президенте Респ. Беларусь, 2019. – С. 89–91.
10. Аксенчик, Н. В. Дистанционное обучение в высшей школе. Технико-технологический и дидактический потенциал информационно-образовательной среды УВО / Н. В. Аксенчик // *Народная асвета.* – № 8. – 2020. – С. 8–11.
11. Кодекс Республики Беларусь об образовании. – Минск : Нац. центр правовой информации Респ. Беларусь, 2022. – 512 с.
12. Концепция цифровой трансформации процессов в системе образования Республики Беларусь на 2019–2025 гг. [Электронный ресурс] // Государственное учреждение образования «Минский городской институт развития образования». Центр информационных технологий. – Режим доступа: <http://iso.minsk.edu.by/main.aspx?guid=34963>. – Дата доступа: 12.03.2023.

Статья поступила 23 марта 2023 г.