Article

Genesis of the problem of digital communicative competence formation in a blended learning format in the period from 1950 to 1990
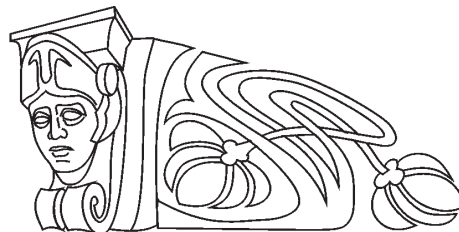
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Abstract. *Introduction.* Digital transformation of science and higher education is a strategic direction of the state policy in the Russian Federation that contributes to qualitative changes in every area of life, including the field of science and education, supporting the idea of continuous professional development. The goal of digital transformation is to achieve a high level of digital fluency in educational establishments of higher education. Digital transformation is aimed at solving different problems, namely increasing the level of digital competence of specialists and students of educational organizations, especially when working in a new learning format. Therefore, we suggest considering the genesis of the problem of formation of digital communicative competence in a blended learning format. *Theoretical analysis.* This competence, implemented in a blended learning format, is highly-demanded in the digital reality. The article features the periodization of the genesis of the problem of digital communicative competence formation in a blended learning format. The main trends of the second phase of its formation are identified. The scientific, theoretical, historical and socio-cultural prerequisites of its development are determined. *Conclusion.* Digital competence improves the quality of education and promotes digital innovations in educational environment, maximizing the potential of modern technologies.

Keywords: competence, communicative competence, digital communicative competence, blended learning format, digitalization, programmed learning, competence-based approach

Научная статья

Генезис проблемы формирования цифровой коммуникативной компетенции в смешанном формате обучения в период с 1950 по 1990 год

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Аннотация. *Введение.* Цифровая трансформация науки и образования является стратегическим направлением государственной политики Российской Федерации, которая способствует качественным изменениям во всех сферах жизни, в том числе в научной и образовательной деятельности, поддерживает идею постоянного саморазвития и совершенствования навыков и умений. Цель цифровой трансформации заключается в стремлении достичь высокого уровня цифровой грамотности в высшей школе. Цифровая трансформация направлена на решение многих вопросов, в частности повышение уровня цифровых компетенций сотрудников и обучающихся образовательных организаций в режиме работы с новым форматом обучения. В связи с этим мы предлагаем рассмотреть генезис проблемы формирования цифровой коммуникативной компетенции в смешанном формате обучения. *Теоретический анализ.* Одной из востребованных компетенций в реалиях цифровой эпохи является цифровая коммуникативная компетенция, реализуемая в условиях смешанного формата обучения. В статье содержится периодизация генезиса проблемы формирования цифровой коммуникативной компетенции в смешанном формате обучения, выявлены главные тенденции на 2-м этапе ее развития,

определены научные, теоретические, исторические, социально-культурные предпосылки. ***Заключение.*** Владение цифровыми компетенциями способствует повышению качества образования и продвижению цифровых инноваций в образовательной среде, так как максимально используется потенциал современных технологий.

Introduction

The necessity to increase accessibility of education regardless of opportunities and demand, to provide high quality education, that meets the requirements of the constantly developing world, is quite pressing for modern society. Today, higher educational establishments provide an opportunity to get fundamental knowledge in various learning formats. Taking into consideration the current realities of digitalization processes in the country, mastering digital competences and digital technologies and implementing new learning models are key components in the comprehensive development of a person, striving for continuous education. Regarding this, we want to consider the genesis of the problem of formation of digital communicative competence in a blended learning format from 1950 to 1990, as it is associated with a significant change in scientific and social guidelines; besides, certain aspects of the research problem were more pronounced at that period. The trajectory of the development of the highlighted issue is based on the political, social and economic conditions in the country. We divided the whole periodization into 3 parts:

The 1st period (1920–1950) is characterized by eradication of illiteracy, prerequisites for overcoming technical and economic recession, beginning of industrialization, and digital divide;

The 2nd period (1950-1990) provided benefits for various spheres of life such as development of the humanities, invention of computers and multimedia technologies, enhanced scientific activity, and competence-based approach;

The 3rd period (the 1990s to the present) is remarkable for the new political mindset, economic reforms, and digital evolution.

Theoretical analysis

We suggest considering the 2nd period in more detail (1950–1990). The beginning of the 2nd period (1950-1990ss) was characterized by the Khrushchev`s Thaw, with its political course aimed at liberalization, modernization of public life and development of political processes in the country. The international situation was stable without any tension, and the country was oriented on the development of new forms of cooperation [1]. Modernization of all spheres of life was on the agenda, especially the sphere of education. Attempts were made to teach computer literacy as the computerization policy was carried out to create a technological basis for the transition to information society.

Initially, the idea of using a computer as a means of learning appeared in the 1950s as a part of a programmed learning, but it was applied only to technical universities, eliminating the contradiction between the amount of necessary knowledge and the possibility of mastering it in limited time. According to the program of the development of the Soviet higher education, designed by the Central Committee and the Council of Ministers of the USSR in 1958, university education was supposed to rise to a new level, so specialists were interested in the programmed learning and it was under study. Such courses as calculus mathematics, industrial electronics and programming were implemented in the learning process.

In 1985, it was decided to accelerate the scientific and technical process and to intensify the science; the priority areas of scientific and technological progress, such as the development of computer science, computer technology, and cybernetics, were outlined. A new course "Fundamentals of Computer Science and Computer Engineering" was introduced into the curricula. However, the course faced some difficulties: unpreparedness of the staff, lack of educational and methodological references, and insufficient computer equipment. As a result, it was studied only theoretically [2]. However, the process of informatization of education got an impetus, and its gradual development contributed to the need of computer technology.

The education and social welfare system, despite some drawbacks, met the requirements of the society. People have always tried to replenish their education, being on the verge of changes. It is known that the integration of new technologies is impossible without qualified specialists who possess competence that is essential for the performance of professional activities.

Therefore, we need to address the issue of developing a competence framework. The concept was introduced for the first time in the 1970s and was defined as the knowledge and skills that a person possesses [3], and the ability to solve problems based on the experience [4]. The term appeared in publications devoted not only to economics, but also to education, especially in the field of foreign languages. Many scientists [5] have considered this concept in different ways, but one of the first to introduce it into the conceptual apparatus of linguistics was Noam Chomsky. In his understanding, competence is the ability to carry out linguistic activities in a native language [6]. This concept has been studied by other scientists too, but it has not gained much popularity. Chomsky's theory contributed to the emergence of the alternative term of "communicative competence", introduced into the science by ethnolinguist D. Hymes in 1971 [7]. The term was originally used in methodology of language learning, and later it was borrowed by representatives of other areas of science. In his opinion, the structure of communicative competence is characterized by such components as sociolinguistic, strategic, grammatical and discursive competencies [7]. This was an innovative breakthrough in language learning. The theory of communicative competence continued to be developed by M. Canale and M. Swain and gained the universal recognition [8].

Russian scientists were also engaged in the process of defining the phenomenon of communicative competence. To be more exact, the problems of communication in Russian pedagogy were highlighted by A. Verbitskiy, I. A. Zimnyaya, I. L. Bim, A. A. Leontieva, E. S. Polat, A. V. Khutorskoy, M. N. Vyatyutnev. According to I. A. Zimnyaya, communicative competence is the competence that solves communicative tasks [9]. I. A. Bim defines this type of competence as a complex phenomenon and indicates its constituent elements [10]. M. N. Vyatyutnev presented the following understanding of this issue: competence is the ability to identify and classify situations based on the topic, communicative tasks during speech interaction [11]. A. V. Khutorskoy defines competence as a

pre-formed requirement for a certain level of education, and refers communicative competence to key competences in education [12].

Thus, as we see, in 1990 the scientific and educational community had the following ideas: the concept of competence is a characteristic of the activity that includes knowledge, skills and abilities, and behavioral characteristics in professional and life situations. It is evident that communicative competence is an essential part of any interaction.

Although the world of science is in progress, there is a shortage of specialists capable of reproducing knowledge, adapting to unstable living conditions, and upgrading educational programs. Employers, in turn, increase requirements for the qualification of employees. The rejection of the "knowledge" paradigm and the introduction of a competence-based approach indicate the changes in modern society and employment area. Information overload is inevitable. An illiterate person will not be the one who cannot read, but the one who has not learned to study. Therefore, a competence-based approach is a kind of a response to the social order, the order of the labor market.

Resuming the issue of competence and competence approach, it is worth mentioning that 1990 witnessed active implementation of the competence approach in Russia. Its main idea is to acquire professional knowledge, skills and competences for work and life, upgrading them in a harmonious way.

Regarding western scholars, four approaches to introducing the competence-based model of learning can be outlined:

1) behavioral approach in the US;
2) comprehensive approach in France;
3) functional model in the UK;
4) holistic approach in Austria and Germany.

The American approach considers competence as a behavioral aspect. Representatives of the functional approach are guided by the requirements based on the peculiarities of the professional sphere. In France, the competence-based approach is complex and comprehensive. It considers person's behavior, experience and knowledge. In Germany, the holistic approach includes such abilities as cooperation, ethics and resilience. In Austria, competence includes cognitive abilities, personal qualities and social skills.

Of course, popularization of the competence approach is caused by the employers' demand to upgrade the efficiency of employees. It is evident that traditional forms of education cannot fully reveal the potential of a person. Therefore, the edu-

cational system is undergoing changes dictated by lifelong learning. These changes affect the training format and contribute to the emergence of the term of "blended learning". The emergence of this learning format was due to the availability of personal computers, increasing number of video courses, as well as gradual development of programmed learning. The pioneers in blended learning were American scientists K. J. Bonk [13], C. Graham [13], M. Horn [14] and H. Staker [14]. Bonk and Graham outlined their understanding of blended learning in the handbook "Global Perspectives, Local Design". This learning format complied two components: online learning and teaching with a tutor. Russian scientists also presented their variations of the term "blended learning". For example, Yu. R. Vasilyeva means by this format classes with a tutor, distance learning and independent work [15]. M. N. Mokhova identifies the following components: classes with a tutor, active teaching methods included in a distance learning course [16].

Conclusion

Thus, we can certainly assume that blended learning format easily meets the challenges of the new information era. This form of education is significant for countries with large territories. The importance of blended format is confirmed by the introduction of the Federal program for the creation and development of an integrated learning system. Of course, blended learning format is one of the promising learning technologies, that is aimed at meeting the needs of the society, bridging the information gap and, what is more important, tracking an individual educational trajectory. This trajectory helps achieve better educational outcomes and the relevance of knowledge. It cultivates adaptability in the face of changes. Traditional model would be ineffective in such a situation.

Therefore, the second period of developing digital communicative competence in a blended learning format is characterized by gradual improvement of educational and economic spheres; emergence of the competence paradigm and its promotion; awareness of the necessity of informatization of the national educational system, mainly in higher educational establishments; determination of the role and place of the computer among other educational tools; priority of mass and accessible education.

Summing up, the country is entering the era of information change. The second period of the problem of formation of digital communicative competence is essential for the formation of digital communicative competence in a blended learning format as, based on the current prerequisites, the transition to digital format is evident.

Judging by these results, we can conclude that the problem under study is relevant and requires further investigation. Our state and society are highly interested in the quality of educational service and continuity of self-education process and its effect on the social and economic development of the country. The rapid development of digital technologies has a significant impact on all spheres of our life. Creating new technical basis for the development of economy, social sphere and improving the quality of life through the use of digital technologies are new challenges for educational system. All digital changes that take place today are aimed at mass, high-quality education and comprehensive personal development [17]. Mastering digital competence and implementing a blended learning model are key features of the digital order of education in Russia.

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