BG Pulse Journal USA
ISSN:1947-2536 http://www.bgpulseusa.com/index.php/bg

PEDAGOGICAL CONDITIONS FOR USING WEB PLATFORMS IN ORGANIZING STUDENTS' INDEPENDENT LEARNING IN HIGHER EDUCATION

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Abstract. This article analyzes the pedagogical conditions for using web platforms in organizing students' independent learning in higher education institutions. The study highlights the theoretical foundations of organizing independent learning based on a digital learning environment, the didactic capabilities of web platforms, and their role in the educational process. Organizational-pedagogical, didactic, and psychological-motivational conditions ensuring the effectiveness of students' independent learning have also been systematized. It is substantiated that independent learning organized on the basis of web platforms serves to develop students' self-management, information management, independent thinking, and digital competencies.

Keywords: independent learning, web platform, digital learning environment, higher education, pedagogical conditions, digital technologies, independent learning activity, self-management, digital competence, digitalization of education, online platforms, pedagogical approach.

Introduction. Today, digital transformation processes in the higher education system are proceeding rapidly, and these changes are encompassing all aspects of educational practice. In particular, the issue of effectively organizing students' independent learning has become one of the pressing problems facing higher education teachers. While traditional forms of learning remain within increasingly limited capabilities, web platforms and digital technologies are paving the way for independent learning to reach a new qualitative level.

Independent learning is a student's activity of acquiring knowledge through their own efforts and initiative, which develops not only academic skills but also the abilities of self-management, critical thinking, and creative decision-making [1]. At the same time, the effective organization of independent learning directly depends on the teacher's pedagogical approach and the technological readiness of the educational environment [3].

Research indicates that web platforms and online resources can serve as an important tool for planning, monitoring, and evaluating students' independent learning [4]. In particular, the independent learning process organized on the basis of web technologies serves to transform the student from a passive learner into an active and responsible learner [2]. Furthermore, online platforms provide students with the opportunity to access educational materials at any time and from any location, independently verify their knowledge, and determine their personal learning trajectory [5].

Research in this direction is also being conducted in the higher education system of Uzbekistan. National researchers have studied the pedagogical foundations of organizing independent learning within the credit-module system, the practical effectiveness of digital educational tools, and the results of using smart web platforms, and have drawn a number of important conclusions [6; 7; 8; 9; 10]. These studies confirm that the combined use of independent learning and web platforms can significantly improve academic performance.

Nevertheless, the issue of the pedagogical conditions necessary for using web platforms in organizing students' independent learning remains insufficiently studied. Without defining the pedagogical conditions, the implementation of technological tools in the educational process often does not yield the expected result, and the platform becomes merely an electronic version of the traditional lesson process. This contradiction defines the research problem of this article and justifies its relevance.

Literature review. An analysis of scientific literature dedicated to the organization of students' independent learning and the use of web platforms shows that research in this field is developing in several directions.

The first direction is aimed at studying the theoretical and pedagogical foundations of independent learning. Z.A.Kholmatova [6] considers independent learning as a pedagogical problem in the higher education system and substantiates that the three main aspects of its organization - personal development, professional and cultural competencies, and the credit-module system - complement each other. In the author's study, the primary task within the credit-module system is to enhance the student's self-management potential and strengthen their motivation for the educational process. Sh.N.Khodjikulova [1] developed a methodology for forming core competencies in the process of self-education using economics students as an example and presented specific mechanisms for developing independent work skills within the credit-module system.

The second direction includes foreign research dedicated to the role of web technologies and online platforms in the educational process. K.Atadzhanov [2] studied the issue of developing the pedagogical competence of future teachers based on web technologies and proved that Web 2.0 services and the blended learning model have a positive impact on the quality of independent learning. It is shown that the five-stage model proposed by the author strengthens independent research activities by involving students in the network community.

In the study by A.Kosshygulova and co-authors [3], the pedagogical and psychological conditions for organizing students' independent work were extensively analyzed. The results of the experimental study conducted at the Kazakh National Pedagogical University showed that the targeted formation of pedagogical conditions significantly increased the motivation, cognitive activity, and independent work skills of students in the experimental group compared to the control group. The study identifies ensuring subject-subject relations, the gradual complication of tasks, and the systematic diagnosis of knowledge as the primary pedagogical conditions.

The third direction is aimed at assessing the practical effectiveness of using online platforms in organizing independent learning. The study by Dudar V. et al. [4] provides an extensive analysis of the potential of foreign internet platforms in the open educational environment. Major platforms such as Canvas, Coursera, Khan Academy, Nearpod, and GoReact were analyzed, and the key principles of a successful digital educational environment - flexibility, multi-component, distributed, and integrity - were identified. O. Svirdyuk et al. [5] experimentally confirmed the synergistic significance of online platforms in the independent learning activities of higher education students. The fact that the results of the experimental group differed statistically significantly compared to the control group was convincing evidence that the targeted use of online platforms increases educational effectiveness.

The fourth direction covers national research. N.S.Zokirova and A.A.Mamatov [7] studied the role of digital technologies in planning independent learning in higher education and demonstrated the practical possibilities of platforms such as Moodle and Google Classroom. D.M.Bekkulova [8] analyzed ways to improve students' independent learning competence using digital educational

tools and substantiated the role of e-learning platforms, mobile applications, and electronic libraries in developing skills for searching, analyzing, and processing information. D.U.Karshiyeva and I.O.Khamrayeva [9] studied the practical effectiveness of using smart web platforms and found that the academic performance of students in the group using the platform increased by 15–25%, and independent research activity and motivation increased. I.A.Rakhmonov [10] systematically studied the didactic capabilities of digital educational platforms in higher education and emphasized that when selecting platforms, functional capabilities, interactivity, the availability of testing and monitoring systems, and student convenience should be considered as the main criteria.

Thus, an analysis of the available literature allows for a number of important conclusions to be drawn. Firstly, the effectiveness of organizing independent learning largely depends on the provision of pedagogical conditions. Secondly, web platforms can bring students' independent work into a more interactive, personalized, and controlled form. Thirdly, in existing studies, the set of pedagogical conditions for the integration of web platforms and independent learning has not been studied holistically and systematically, which constitutes the main scientific problem of this study.

Main part. Web platforms are online educational environments that combine educational materials, interactive tasks, testing and assessment systems, and teacher-student communication tools in one place. These platforms provide a number of important pedagogical opportunities for organizing independent learning.

Independence from time and space. The student can access the educational materials at any time and from any place. This creates a personalized learning environment for students with different learning styles and life circumstances. In traditional education, however, independent work was often carried out only outside the classroom, within limited timeframes.

Opportunity for adaptive learning. Modern smart web platforms are capable of automatically forming an individual learning trajectory by analyzing each student's knowledge level, academic performance, and interests based on artificial intelligence technologies [9]. This makes the student's independent learning process more effective and purposeful.

The possibility of continuous feedback. Automated assessment systems, interactive tests, and self-assessment tools on web platforms allow students to immediately identify and correct their mistakes. This serves to elevate independent learning to a qualitatively new level [10].

Ability to monitor and control. Through the platform, the teacher can monitor each student's learning activity, the dynamics of task completion, and changes in knowledge levels in real time. This data serves as an important basis for ensuring an individualized approach [4].

Interactive and multimedia capabilities. Tools such as video lessons, animations, simulators, virtual laboratories, and interactive tasks increase students' interest in knowledge and allow them to master complex concepts in a visual form [8].

Pedagogical conditions for using web platforms in organizing students' independent learning. The availability and technical capabilities of web platforms alone do not ensure the effectiveness of independent learning. To achieve this, it is necessary to simultaneously and consistently provide a number of pedagogical conditions. Within the framework of this study, these conditions were analyzed by dividing them into three groups: organizational-pedagogical, didactic, and psychological-motivational.

Organizational and pedagogical conditions:

Redesigning the educational process in accordance with the platform. To use the web platform effectively, it is necessary to revise the curriculum, the independent work system, and the evaluation criteria, taking into account the platform's capabilities. The platform should not merely

become an electronic version of the traditional lesson - it requires a new pedagogical model to organize independent learning in a more in-depth, interactive, and personalized manner [2].

Ensuring the digital pedagogical literacy of teachers. Research indicates that advanced platform features remain untapped due to teachers lacking sufficient skills in using technology [10]. Therefore, introducing teachers to digital pedagogical methods and conducting professional development courses and trainings for them is a necessary pedagogical condition.

Establishing a student support service. To overcome students' difficulties in using the platform, it is important to establish a system of technical support and methodological guidelines [7]. This support can be organized in both synchronous (real-time consultations) and asynchronous (visual video materials) forms.

Provision of the necessary technological infrastructure. Creating equal access to platform resources for all students is a key requirement. In many studies, a lack of Internet access or limited access to technical tools has been noted as one of the main obstacles reducing the effectiveness of independent learning [3; 8].

Didactic conditions:

Defining specific goals and results of independent study. Independent work assignments posted on the platform must be linked to specific educational goals, and the expected result for the student must be expressed in an understandable form. Untargeted or unclear tasks lead to disorientation and a decrease in students' motivation [6].

Apply the principle of step-by-step complexity of tasks. Independent study tasks should be structured from simple to complex, based on the student's previous knowledge and skills. This approach allows students to gain confidence in their abilities and gradually develop the ability to independently perform more complex tasks [3].

Implementation of a system of interactive and multiform tasks. Instead of relying only on tests and written assignments, it is recommended to use various forms of assignments on the platform, such as video analysis, case study, project work, and collaborative work. This ensures that the student works at different cognitive levels and eliminates the risk of monotony in self-education [5].

Ensure constant and prompt feedback. Providing high-quality and timely feedback to the student on the work performed through the platform is a fundamental pedagogical condition for independent learning. Feedback should not only point out mistakes but also set the right direction and serve as motivation for further actions [4].

Formation of a personalized learning trajectory. Using the platform's capabilities, forming an individual learning path depending on each student's level of mastery, pace of learning, and interests serves as an important didactic condition for effective independent learning [9].

Psychological and motivational conditions:

Formation of students' internal motivation. Developing motivation based not on external control and obligations, but on the student's own internal interest and desire to learn is the most important psychological condition for organizing independent learning through web platforms. To achieve this, assignments must be directly related to the student's personal interests and future professional activities [6].

Developing self-management skills. Independent work in an online environment requires a high level of self-control, time management, and planning skills from the student. These skills are not formed on their own - specific exercises and tasks aimed at their purposeful development must be integrated into the platform [7].

Creating a positive educational environment. Through the platform, it is a crucial psychological requirement to foster an attitude of learning from mistakes and enjoying exploration

instead of fearing failure. To do this, it is recommended to use gamification methods, celebrate even small achievements, and establish a system of constant student encouragement [5].

Enhancing students' digital literacy. A number of studies have shown that the effectiveness of using platforms can decrease due to students lacking sufficient skills in using digital tools [8]. Therefore, at the beginning of the semester, introducing students to the platform, teaching basic functions, and strengthening digital competencies should be defined as a necessary psychological and pedagogical condition.

The aforementioned pedagogical conditions must be ensured not individually, but as a holistic system. Organizational and pedagogical conditions form the external environment of independent learning through web platforms; didactic conditions form its substantive and methodological foundation; and psychological and motivational conditions ensure the active and responsible participation of the student. The joint provision of these three groups of conditions allows for the achievement of true effectiveness in independent learning through web platforms.

It should also be noted that it is important to pay attention to the context in the process of providing conditions. In the context of Uzbekistan, in particular, compliance with national educational standards, the availability of educational materials in the Uzbek language, and harmony with local educational traditions - all these are specific pedagogical conditions that must be taken into account when organizing independent learning from web platforms [10].

Conclusion. This article analyzes and systematically substantiates the pedagogical conditions for using web platforms in organizing students' independent learning in higher education. Based on the conducted scientific analysis, the following conclusions can be drawn.

Firstly, web platforms create broad pedagogical opportunities for organizing students' independent learning in a more effective, personalized, and interactive manner. Independence from time and space, adaptive learning, constant feedback, monitoring, and multiform interactive resources - all of these provide significant advantages over traditional forms of self-education.

Secondly, the technical availability of web platforms alone does not ensure the quality of independent learning. To achieve this, organizational-pedagogical, didactic, and psychological-motivational conditions must be ensured as an integrated system. Among these conditions, the digital pedagogical literacy of teachers, the formation of internal motivation among students, the gradual complication of tasks, and constant prompt feedback play a particularly important role.

Thirdly, existing national research indicates that the use of web platforms in Uzbekistan's higher education institutions remains primarily at the level of a technical tool—their didactic potential has not been fully explored. The reason for this is often the lack of a system of pedagogical conditions. Therefore, while implementing platforms at the level of educational institutions, targeted measures must be implemented to ensure pedagogical conditions.

Fourthly, in the future, conducting large-scale experimental research covering higher education institutions in Uzbekistan, evaluating the effectiveness of conditions through quantitative indicators, and developing a pedagogical model adapted to the national context remains an important scientific task.

Thus, systematic provision of pedagogical conditions for organizing independent learning through web platforms is a relevant and promising way to improve the quality of higher education and shape students as independently and innovatively thinking specialists.

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