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USING VIRTUAL CLASSES, ONLINE LEARNING AND EDUCATIONAL PLATFORMS (E.G. COURSERA, MOODLE)

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Abstract
In the context of rapid digitalization of society, online learning is becoming the most important area of modernization of educational systems. Virtual classes, distance learning platforms and online courses are radically changing the forms, content and organization of the educational process. This became especially noticeable during the COVID-19 pandemic, when digital formats became an integral part of the educational reality. Today, learning using platforms such as Moodle, Coursera, Google Classroom, Edmodo is used not only as a temporary alternative to face-to-face education, but also as an independent educational model that meets the requirements of flexibility, accessibility and personalization. Thus, the study of the effectiveness and pedagogical potential of online learning and virtual platforms is scientifically and practically relevant.

Keywords: Online learning, virtual classrooms, educational platforms, Moodle, Coursera, distance education.

ИСПОЛЬЗОВАНИЕ ВИРТУАЛЬНЫХ КЛАССОВ, ОНЛАЙН-ОБУЧЕНИЯ И ОБРАЗОВАТЕЛЬНЫХ ПЛАТФОРМ (НАПРИМЕР, COURSERA, MOODLE)

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Аннотация:
В условиях стремительной цифровизации общества онлайн-обучение становится важнейшим направлением модернизации образовательных систем. Виртуальные классы, платформы дистанционного образования и онлайн-курсы радикально меняют формы, содержание и организацию учебного процесса. Особенно заметным это стало в период пандемии COVID-19, когда цифровые форматы стали неотъемлемой частью образовательной реальности. Сегодня обучение с применением платформ, таких как Moodle, Coursera, Google Classroom, Edmodo, используется не только как временная альтернатива очной форме, но и как самостоятельная образовательная модель, соответствующая требованиям гибкости, доступности и персонализации.
Таким образом, исследование эффективности и педагогического потенциала онлайн-обучения и виртуальных платформ является научно и практически актуальным.

Ключевые слова: онлайн-обучение**,** виртуальные классы**,** образовательные платформы**,** Moodle**,** Coursera**,** дистанционное образование.

Research objectives:
1. To reveal the concept of online learning and the features of virtual classrooms;
2. To analyze the development and classification of educational platforms;
3. To explore the functionality of Coursera and Moodle;
4. To compare traditional and online learning by key parameters;
5. To assess the possibilities of adapting platforms to different levels of education.

The object of the research is the modern process of digital transformation of education. The subject of the research is online learning technologies, virtual classrooms and distance learning platforms. The following methods were used in the work: theoretical analysis of scientific and methodological literature on the problem of online learning; comparative analysis of traditional and digital learning formats; case analysis of the Coursera and Moodle platforms; generalization and systematization of data.

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The novelty of the study lies in a comprehensive consideration of educational platforms as key tools of online learning, in substantiating their pedagogical effectiveness, as well as in analyzing the possibility of their use at different levels of education. The work complements existing research with a specific comparison of platforms and practical recommendations. The work consists of an introduction, two main chapters, a conclusion and a list of references. The first chapter reveals the theoretical foundations of online learning and the essence of virtual classes. The second chapter considers the features of the Coursera and Moodle platforms and their impact on the organization of digital learning. Theoretical foundations of online learning and virtual classes. The concept and essence of online learning. Online learning is a form of educational process in which the interaction of a teacher and a student, the transfer of knowledge and knowledge control are carried out using Internet technologies and digital platforms. Unlike traditional learning, the online format is characterized by flexibility, independence from time and place, widespread use of multimedia and interactive tools. Online learning can be both synchronous (in real time) and asynchronous (at a time convenient for the student). Modern platforms allow you to combine both approaches. Virtual classroom as a form of organizing the educational process. A virtual classroom is a digital space that imitates the structure and interaction of a traditional class, but in an online environment. It includes tools for: conducting video classes, sharing materials, checking assignments, discussions and chats, interacting with the teacher. Platforms such as Moodle or Zoom allow the teacher to manage the educational process, and students to study in a convenient way. Virtual classrooms support individual and group forms of work, which makes them effective even with a large number of participants. Historical development of educational platforms. The development of educational platforms began in the 1990s with learning management systems (LMS). Blackboard and Moodle were among the first. With the development of the Internet and the growing demand for flexible learning, MOOC platforms (Massive Open Online Courses) appeared - such as Coursera, edX, Udacity. Today, platforms are developing in the direction of personalization of learning, integration of artificial intelligence, the use of learning analytics and microlearning. Advantages and limitations of online formats. Advantages:

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Accessibility of education regardless of geography; Individual pace of learning; A wide variety of content and formats; The ability to re-study the material; Combination with professional activity. Limitations: Dependence on technical means and the Internet; Lack of live communication and social adaptation; Difficulties in controlling students' independence; Requirement for high self-discipline. Thus, the effectiveness of online learning directly depends on the quality of the platforms, the digital competencies of the participants and the methodological development of the courses. Educational platforms in the digital learning environment. Classification and typology of educational platforms. Educational platforms can be classified on various grounds:

1. By scale:
• Internal LMS (Moodle, Google Classroom);
• International MOOC platforms (Coursera, edX).
2. By target audience:
• School (Uchi.ru, LearningApps),
• University (OpenEdu, Moodle),
• Professional (Udemy, Stepik).
3. By functionality:
• Content (access to courses and lectures),
• Management (process organization system - Moodle),
• Interactive (communication, assessment - Zoom, MS Teams).

Such diversity allows you to select platforms depending on the tasks, age of students and teaching conditions.

Review and functionality of the Coursera and Moodle platforms. Coursera is a global platform for massive online courses, founded in 2012.

Functionality: Access to courses from universities around the world (Stanford, Yale, Moscow State University); Video lectures, tests, final projects; Certification, progress system, automated assignment checking; Possibility of adaptation for corporate training. Moodle is a free LMS with open source, actively used all over the world, including in schools and universities of Uzbekistan. Functionality: Organization of courses and topics; Forums, assignments, tests, surveys; Group management, attendance control; Integration

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with other services (Zoom, H5P). The advantage of Moodle is flexibility, the ability to customize to any needs of the institution.

Comparative analysis of traditional and online learning

Parameter	Traditional Learning	Online learning
Place of study	Physical Classroom	Virtual space
Time	Fixed Schedule	Flexible or elective
Submission format	Predominantly Oral	Digital, multimedia
Feedback	Real Time	Asynchronous or blended
Independence	Limited	Advanced
Availability	On-Premises	Global

Online learning provides greater opportunities for access and personalization, but requires high digital skills and internal motivation. Adaptation of educational platforms to different levels of education. In school education, platforms are used for homework, distance learning, interactive classes (Moodle, Uchi.ru). In higher education, they provide access to lectures, digital courses, testing, group projects (Coursera, Moodle). In additional education and vocational training, platforms help to master new skills, undergo retraining (Stepik, Udemy, Coursera for Business). Thus, educational platforms are successfully adapted to the age and professional characteristics of students and become a universal tool for implementing the concept of continuous education. Pedagogical and organizational aspects of using virtual classes. Didactic features of online lessons. Online lessons require a revision of traditional didactics. Key features include clear structuring of material, the use of multimedia resources, interactive tasks and clear time regulation. It is important to ensure a change of activities every 10-15 minutes to maintain students' attention. Asynchronous classes require the creation of methodological recommendations for independent mastering. The role of the teacher and the student in the digital environment. In the online environment, the teacher acts as a moderator, facilitator and coordinator, and not just a lecturer. The student becomes an active participant in the educational process, which requires a high degree of independence, responsibility and digital interaction skills. Effective online learning is only possible with the active

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involvement of both parties. Methods of motivation and support in online learning. Motivation in the online environment is provided through: the introduction of gamification elements (badges, ratings); the formation of achievable goals and feedback; social interaction (group work, discussions); personalization of content and adaptive tasks. It is also important to provide psychological support and regular encouragement. Forms of knowledge control and feedback. The main forms of control in online learning: online tests with automatic checking; individual projects and essays; oral surveys via video link; portfolio and self-assessment. Feedback should be fast, constructive and multi-level — both from the teacher and from peers (peer-review). Interactive tools: video communication, chats, tests, boards. Virtual classrooms include a variety of tools: video communication (Zoom, Google Meet) — for lectures and consultations; chats and forums — for communication and discussions; tests and surveys (Moodle, Google Forms); boards (Padlet, Miro) — for collaboration. The use of these tools increases engagement and forms a digital learning culture.

Practical analysis of the use of Coursera and Moodle platforms. Cases of successful use of Coursera in universities. Harvard, Moscow State University and Nazarbayev University actively use Coursera to complement their courses. The benefits include access to international educational programs, certification options and modular content. Students receive a flexible schedule and modern materials from leading global teachers. Implementation of Moodle in schools and universities of Uzbekistan. In Uzbekistan, Moodle has been implemented in a number of universities, including NUUz, TATU and ChSPU. The platform is used to store materials, conduct tests, submit coursework and interact with teachers. Availability in Uzbek and Russian makes Moodle convenient for the national education system. Evaluation of the user experience of students and teachers. Positive aspects: ease of access to materials; the ability to study at an individual pace; a variety of tasks and forms of communication. Disadvantages: technical failures; poor internet connection in the regions; lack of digital competencies among teachers. Problems and suggestions for improving the online environment. The main problems include: student overload; low motivation for independent work; a formal approach to tasks. Suggestions: development of digital pedagogy;

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implementation of interactive and adaptive solutions; regular professional development of teachers.

Prospects for the development of online learning and virtual platforms. Integration of AI and adaptive technologies into platforms. Artificial intelligence allows for personalized learning: selection of tasks, progress assessment, automatic assistance. Adaptive platforms (for example, Knewton) adjust to the student's level, increasing efficiency. Prospects for hybrid and personalized learning. Hybrid learning combines the best of online and offline forms. It allows for a combination of personal interaction and digital flexibility. Personalized learning based on the interests and rhythm of the student is becoming an important area of development. Government initiatives and support for EdTech. Governments are developing national platforms, funding digitalization, and creating regulations. Uzbekistan is implementing the Digital Education program, developing LMS in schools, and creating open online courses. Educational platforms as a tool for continuous education. Platforms provide the opportunity to learn at any age and place, including additional and professional education. This is important for the concept of "lifelong learning". Ethics and digital culture in online learning. It is necessary to form digital ethics: respect, honesty, data protection. The teacher must develop ethical standards of behavior on the network and create a safe educational environment.

Conclusion

Online learning and educational platforms are becoming an integral part of modern pedagogy. They provide flexibility, accessibility, interactivity and personalization of learning, but require digital literacy, methodological training and ethical responsibility. The results of the study can be useful when choosing and implementing platforms in educational institutions, for training teachers, creating effective digital courses. Recommendations for the effective use of platforms. Provide a stable digital infrastructure; Develop digital competencies of teachers and students; Use blended learning formats; Conduct regular feedback and evaluation of digital courses. Prospects for further research. In the future, the following studies are relevant: the effectiveness of adaptive technologies; psychological and pedagogical aspects of online learning; motivation models in a virtual environment.

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REFERENCES:

1. Гребенюк О.С. Цифровые платформы в образовании. — Казань, 2021.
2. Stepik.org — российская платформа открытого обучения
3. Zoom, Google Classroom, Padlet, Miro — официальные сайты и обзоры
4. Виноградова Е.Р. Методика онлайн-обучения. — М.: Академия, 2022.
5. Раченко О.В. Гибридное обучение в высшей школе. — Томск, 2021.
6. Урманов Ш.М «Изменения педагогического процесса в современной школе: вызовы и перспективы» — Pedagog Respublika ilmiy jurnali Volume-7, 2024.
7. Ogiloy Bozorova. (2024). METHODOLOGY OF TEACHING MATHEMATICS. Web of Teachers: Inderscience Research, 2(10), 66–71. Retrieved from https://webofjournals.com/index.php/1/article/view/1901
8. Makhmudov, I., Jumamuratov, D., Seytov, A., Sadiev, U., Jovliev, U., Shonazarov, J., Muminov, O., Ruziev, M., & Yusupov, M. (2022). Mathematical models of typical elements of water management systems. Journal of Positive School Psychology, 6(6), 6871-6877. http://journalppw.com
9. Abdullayev, S. A., & Ahmadjonova, M. A. (2021). Matlab tizimida oddiy differensial tenglamalarni yechish [Solving ordinary differential equations in Matlab system]. Academic Research in Educational Sciences, 2(11), 1576-1584. Academic Research LLC.