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THE INFLUENCE OF ONLINE EDUCATION ON THE DEVELOPMENT OF ADAPTIVE SKILLS AND FLEXIBILITY OF THINKING OF MODERN STUDENTS

Abstract. Today's students face many challenges that require them to be flexible and adaptable. In today's fast-paced world, online education is critical to improving such skills. This article examines the impact of online educational resources on the development of flexible thinking and adaptive skills in modern students. I will look at various elements of this influence, such as the use of interactive platforms, multimedia tools and gaming applications. Based on a review of relevant literature and analysis of case studies, we discuss effective methods for incorporating online education into the learning process to enhance student flexibility and adaptability. My findings highlight the importance of using online tools to develop key skills needed to successfully adapt to today's educational and professional environments.

Key-words: Online education, adaptive skills, flexibility of thinking, interactive platforms, multimedia tools, competency development, educational resources

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Влияние онлайн-обучения на развитие адаптивных навыков и гибкости мышления у современных студентов

Аннотация

Сегодняшние студенты сталкиваются со многими проблемами, которые требуют от них гибкости и адаптации. В современном быстро меняющемся мире онлайн-образование имеет решающее значение для улучшения таких навыков. В данной статье рассматривается влияние образовательных онлайн-ресурсов на развитие гибкого мышления и адаптивных навыков у современных студентов. Я рассмотрю различные элементы этого влияния, такие как использование интерактивных платформ, мультимедийных инструментов и игровых приложений. На основе обзора соответствующей литературы и анализа тематических исследований мы обсуждаем эффективные методы включения онлайн-обучения в процесс обучения для повышения гибкости и адаптации учащихся. Мои выводы подчеркивают важность использования онлайн-инструментов для развития ключевых навыков, необходимых для успешной адаптации к современной образовательной и профессиональной среде.

Ключевые слова: онлайн-образование, адаптивные навыки, гибкость мышления, интерактивные платформы, мультимедийные инструменты, развитие компетенций, образовательные ресурсы.

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Қазіргі студенттердің ойлау икемділігі мен бейімделу дағдыларын дамытудағы онлайн оқытудың әсері

Андатпа

Қазіргі студенттер икемділік пен бейімделуді талап ететін көптеген қиындықтарға тап болады. Бүгінгі қарыштап дамып келе жатқан әлемде мұндай дағдыларды жетілдіру үшін онлайн білім беру өте маңызды. Бұл мақала заманауи студенттердің икемді ойлауы мен бейімделу дағдыларын дамытуға онлайн білім беру ресурстарының әсерін зерттейді. Мен бұл әсердің әртүрлі элементтерін қарастырамын, мысалы, интерактивті платформаларды, мультимедиялық

құралдарды және ойын қолданбаларын пайдалану. Тиісті әдебиеттерді шолу және кейс-стадилерді талдау негізінде біз оқушылардың икемділігі мен бейімделгіштігін арттыру үшін онлайн оқытуды оқу тәжірибесіне енгізудің тиімді әдістерін талқылаймыз. Менің қорытындыларым бүгінгі білім беру және кәсіби ортаға сәтті бейімделу үшін қажетті негізгі дағдыларды дамыту үшін онлайн құралдарды пайдаланудың маңыздылығын көрсетеді.

Түйін сөздер: онлайн білім беру, бейімделу дағдылары, ойлау икемділігі, интерактивті платформалар, мультимедиялық құралдар, құзыреттілікті дамыту, білім беру ресурстары.

Students must adapt to new conditions and requirements in the modern world, in which technology is rapidly developing and the educational environment is changing. As Nada Dabbagh wrote "The use of personal learning environments, social media and self-regulated learning provides a natural formula for integrating formal and informal learning. These tools provide students with the opportunity to create their own learning environment that combines academic and social aspects, and allows them to take greater control of their learning process." (Dabbagh & Kitsantas, 2012, p. 3). Online education is becoming an integral part of this process, providing students with access to a wide range of learning resources and resources. My article is devoted to studying the influence of online education on the development of adaptive skills and flexibility of thinking of modern students. The goal of this study is to analyze the various aspects of the impact of online educational resources on the development of key skills necessary for successful adaptation to the modern educational and professional environment. I want to find effective methods for using online resources in the educational process that promote the development of flexibility and adaptability of students. This research not only helps to understand the importance of online education in modern education, but also offers concrete, practical tips for improving and making learning more effective.

Research objectives:

-To investigate the current state of online education and its impact on the development of adaptive skills in students.

-To assess the impact of online education on the flexibility of students' thinking.

-To offer practical recommendations and strategies for optimizing the use of online education in order to develop adaptability and flexibility of thinking in students.

One of the most important teaching

methods in recent decades has been online learning. Online courses allow students to learn new subjects and develop skills in a place and time that is convenient for them. In this article, I will examine the impact of online learning on developing flexible thinking and adaptive skills in today's students. I will present the results of my research conducted to evaluate how effective online courses are in developing these important skills. A controlled experiment was designed to investigate the effects of online learning on adaptive skills and mental flexibility. The experiment was organized with the participation of students from different groups, who were randomly divided into two groups: experimental and control. To assess changes, both groups were tested for adaptive skills and flexibility of thinking after a special online course. One hundred students from different groups were randomly selected for the experiment. Of these, fifty students were assigned to the experimental group, and the remaining fifty were assigned to the control group. All participants took a standardized test of adaptive abilities and mental flexibility at the beginning of the experiment, which consists of questions based on problem-solving or case study. In the diagram 1 we observe that all participants received an average score of 65%. Students in the experimental group began taking an online lesson consisting of various interactive modules and assignments with the goal of improving their adaptability and flexibility of thinking. The session provided a brief definition of agility and an explanation of its importance in the modern world. Students were offered problem situations or cases that required a flexible approach to solution. They analyzed situations and proposed various solutions. The session also included discussion points during which students could discuss their ideas and approaches to problem solving with colleagues. The control group continued to study according to their standard programs. At the end of the

lesson, each group was re-tested. After the experiment I got results as presented in the diagram 2: the mean score of the experimental group increased to 78%, while the mean score of the control group decreased to 68%. Compared to

the control group, participants in the experimental group who completed the online course showed significant improvements in their adaptive skills and mental flexibility.

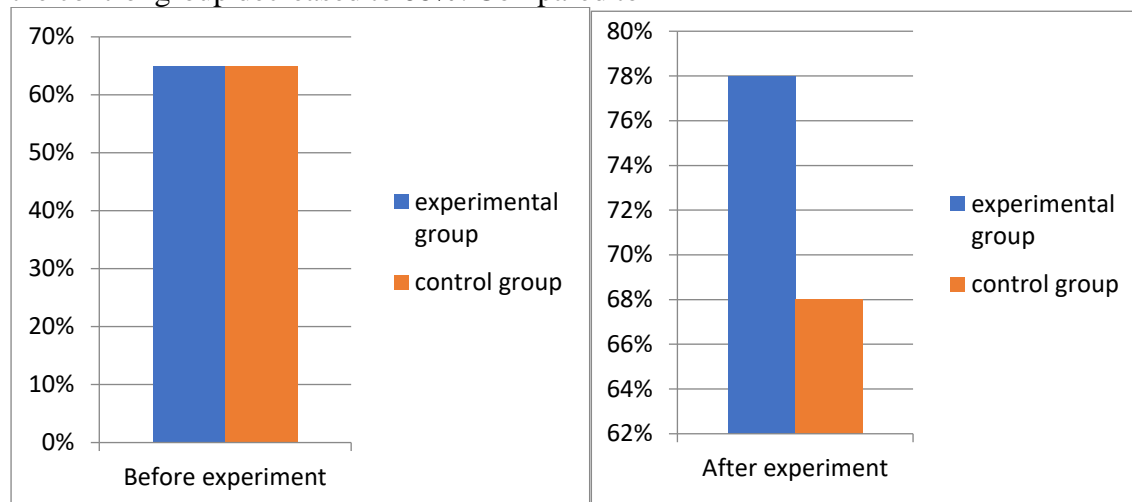


Diagram 1

Diagram 2

Analysis of the experiment results showed that students who took online courses significantly improved their adaptive skills and flexibility of thinking compared to the control group. Additional research into the effectiveness of online learning and its place in the development of modern education will be interesting based on the data obtained. The quality of online learning is one of the main issues raised by our experiment. According to our research, compared to those who continued traditional learning, students who completed a special online course significantly improved their adaptive abilities and flexibility of thinking. This confirms how important online education is in today's world and how much it can improve students' knowledge.

The results of our study highlight the importance of developing adaptive skills and flexible thinking in today's students in a rapidly changing world. As Siemens wrote in their work "In a world of constantly changing information, a key skill for learning is the ability to find and connect information, rather than simply memorize facts" (Siemens, 2005, p. 5). Effective online learning, as our experiment has shown, can be a powerful tool for achieving this goal. The use of innovative teaching methods, such as interactive modules and assignments, allows

students not only to absorb information, but also to actively apply it in practice. The flexible format of online courses allows you to adapt the educational process to the individual needs and learning rhythms of each student. The experimental group chose an online course that gave students the opportunity to work at their own pace and tailor the learning experience to their needs. Thanks to this method, students were able to improve their skills and achieve better results. However, it should be noted that research into the effectiveness of online education has not yet been completed. To better understand its capabilities and limitations, we must start with our experiment. More research is needed to gain a deeper understanding of best online learning practices and how they can be incorporated into educational practices. However, it must be recognized that the effectiveness of online learning requires further research. It is important to consider not only the technological aspects, but also the psychological and social aspects of learning. Understanding the potential of online education and developing innovative teaching methods will help improve the quality of education overall. Our study provides a basis for further research in this area and confirms the importance of developing adaptive skills and flexible thinking in modern education.

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