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ҚАЗІРГІ ЗАМАНҒЫ БІЛІМ БЕРУ СТАНДАРТТАРЫНЫҢ ЭВОЛЮЦИЯСЫ РЕТІНДЕ АРАЛАС ОҚЫТУ

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СМЕШАННОЕ ОБУЧЕНИЕ КАК ЭВОЛЮЦИЯ СОВРЕМЕННЫХ ОБРАЗОВАТЕЛЬНЫХ СТАНДАРТОВ

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BLENDED LEARNING AS AN EVOLUTION FOR MODERN EDUCATIONAL STANDARDS

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Аңдатпа

Мақалада аралас оқыту тұжырымдамасы Қазақстанның қазіргі заманғы білім беру жүйесін дамытудағы маңызды эволюциялық қадам ретінде қаралған. Ол аралас оқытуды іргелі іске асыру арқылы Қазақстандағы білім берудің ағымдағы жай-күйін және оның әлеуетті ілгерілеуін талдауға назар аударады.

Онлайн және оффлайн форматтарын біріктіретін аралас оқыту қысқа мерзімді, ұзақ мерзімді ұсынады. Аралас оқытудың базалық сипаттамасының шеңберінен шығып, оның Қазақстанның білім беру жүйесіне кірігуін талдауға және осы процестің әлеуетті нәтижелерін зерделеуге ұмтылады. Заңнамалық базаны әзірлеуді және білікті оқытушыларды даярлауды қоса алғанда, берік құқықтық және институционалдық негіз құру сияқты проблемаларды шешуге ерекше назар аударылады. Іске асырудың әрбір кезеңінде мемлекеттік қолдау табыстың сыни факторы ретінде айқындалған.

Мақалада бес жыл бұрын іске асырылған батыстың табысты тәсілдері ретінде қазақстандық білім беру жүйесі мен халықаралық практиканың салыстырмалы талдауы ұсынылған. Осы талдауға сүйене отырып, аралас оқыту моделін оңтайландыру бойынша ұсынымдар берілген. Зерттеуде аралас оқыту кеешенді мемлекеттік қолдаумен ғана Қазақстан білімінің ажырамас бөлігіне айналуы мүмкін деген қорытынды жасалған. Бұл тез өзгертін әлемге табысты бейімделу үшін жастарды қажетті дағдылармен жарақтандыруға мүмкіндік береді.

Аннотация

В статье рассмотрена концепция смешанного обучения как важнейшего эволюционного шага в развитии современной образовательной системы Казахстана. Она фокусируется на анализе текущего состояния

образования в Казахстане и его потенциального прогресса посредством фундаментальной реализации смешанного обучения.

Смешанное обучение, которое сочетает в себе онлайн- и оффлайн-форматы, предлагает как краткосрочные, так и долгосрочные преимущества. Статья выходит за рамки базового описания смешанного обучения, стремясь проанализировать его интеграцию в систему образования Казахстана и изучить потенциальные результаты этого процесса. Особое внимание уделяется решению таких проблем, как создание прочной правовой и институциональной основы, включая разработку законодательной базы и подготовку квалифицированных преподавателей. Государственная поддержка на каждом этапе реализации определена как критический фактор успеха.

В статье также представлен сравнительный анализ казахстанской системы образования и международной практики, освещающий, как успешные западные подходы, реализованные более пяти лет назад, могут быть адаптированы к казахстанскому контексту. Основываясь на этом анализе, представлены рекомендации по оптимизации модели смешанного обучения. В исследовании сделан вывод, что смешанное обучение может стать неотъемлемой частью образования Казахстана только с комплексной государственной поддержкой. Это позволит вооружить молодежь необходимыми навыками для успешной адаптации к быстро меняющемуся миру.

Annotation

This article examines the concept of blended learning as an essential evolutionary step in the development of Kazakhstan's modern educational system. It focuses on analyzing the current state of education in Kazakhstan and its potential progress through the fundamental implementation of blended learning.

Blended learning, which combines online and offline formats, offers both short-term and long-term benefits. The article goes beyond a basic description of blended learning, aiming to analyze its integration into Kazakhstan's educational system and explore the potential outcomes of this process. Special attention is given to addressing challenges, such as establishing a robust legal and institutional framework, which includes developing legislative foundations and preparing qualified educators. State support at every stage of implementation is identified as a critical factor for success.

The article also provides a comparative analysis of Kazakhstan's education system and international practices, highlighting how successful Western approaches, implemented over five years ago, can be adapted to Kazakhstan's context. Based on this analysis, recommendations are presented for optimizing the blended learning model. The study concludes that blended learning can become an integral part of Kazakhstan's education

system only with comprehensive state support. This will equip the youth with the necessary skills to adapt successfully to the rapidly changing world.

Негізгі сөздер: аралас оқыту, заманауи білім беру сын-қатерлері, сандық бейімделу, интерактивті оқыту.

Ключевые слова: смешанное обучение, современные образовательные вызовы, цифровая адаптация, интерактивное обучение.

Keywords: blended learning, modern educational challenges, digital adaptation, interactive learning.

The wise adapt themselves to circumstances, as water moulds itself to the pitcher.
Chinese proverb

Introduction

The world is changing at an unprecedented pace, leaving us with little time to act in advance. Instead, we are often left to face the consequences head-on and adapt to them in real time. This process of adaptation requires both time and effort, underscoring the importance of perspective. Every situation should not be perceived as a problem but rather as an opportunity. From an educational standpoint, this article views blended learning not as a challenge to overcome but as an evolution for modern educational standards. The critical situation lies in the differing timelines for adopting blended learning systems. In Western countries, discussions around fully integrating

blended learning into education began as early as 2012. A prime example is the influential article *Blended Learning Research in Higher Education and K-12 Settings* by Halverson, Graham, Spring, and Drysdale (Halverson et al., 2012).

Meanwhile, in Kazakhstan, while online systems were gradually introduced into educational processes around the same time, the online format only became a full-fledged participant in education during the COVID-19 pandemic in 2020. This stark contrast highlights a key issue: while Western colleagues worked on embedding online systems into education, Kazakhstan's educational system did not progress at the same pace. Now, observing the results achieved by Western systems, we have an opportunity to extract best practices and optimize Kazakhstan's education system.

Thus, the primary aim of this article is to critically examine the connection between blended education in Kazakhstan and how its implementation can be optimized and made more effective. This examination will address three key research questions:

How can blended learning foster inclusivity and improve access to information in Kazakhstan's educational system?

What are the primary barriers and challenges to implementing blended learning at deeper levels in Kazakhstani schools and universities?

How can blended learning practices be optimized in different regions of Kazakhstan using insights and methods from international educational systems?

The outlined research questions are designed to provide a comprehensive examination of the concept of blended learning. They not only allow us to analyze this phenomenon from multiple perspectives but also encourage us to view it as an evolutionary process, rather than a dichotomy of pros and cons. This approach acknowledges blended learning as a logical progression in Kazakhstan's educational system rather than an isolated challenge or issue to resolve.

Perspective plays a crucial role in shaping how we define and address any situation. By framing blended learning as an opportunity rather than a problem, we can identify potential pathways to resolve emerging challenges across various domains of education and society. This evaluative stance emphasizes that evolution in educational standards is not just a response to external pressures but an intrinsic part of global progress.

Now that the transition from traditional education to blended learning is an established reality, and the possibility of reverting to purely traditional methods is no longer viable, the focus must shift to optimizing processes. The task at hand is to ensure that this system generates maximum progress and development across multiple spheres of life, transforming education into a powerful tool for societal advancement.

Literature Review

Blended learning, while a well-researched and widely adopted educational model in many Western countries, remains underexplored in the context of Kazakhstan. The lack of updated statistical data and comprehensive local studies highlights a gap in the understanding of how this approach is being implemented and optimized nationally. The first significant contribution to this topic in Kazakhstan came with the 2019 article by Niyazova and Usipashim from L. N. Gumilyov Eurasian National University titled "Blended Learning in the Modern Educational Process: Necessity and Opportunity." This study outlines the potential of blended learning within the Kazakhstani educational system, emphasizing its importance and feasibility. However, as one of the few accessible local studies, it underscores the nascent state of research in this area.

To address this gap, this article leverages insights from international literature, which has extensively analyzed blended learning and its applications. A foundational resource is the article "Blended Learning: The New Normal and Emerging Technologies" by Dziuban, Graham, Moskal, Norberg, and Sicilia (2018). This study asserts that blended learning became a standard in Western higher education by 2018, signifying its full integration into educational systems. In contrast, in Kazakhstan, blended learning gained traction only during the COVID-19 pandemic. Despite this recent adoption, many educators in Kazakhstan perceive it as an underdeveloped framework, requiring further structural and methodological improvements.

Another critical resource is Graham, Woodfield, and Harrison's (2013) "Blended Learning Adoption and Implementation in Higher Education: A Theoretical Framework," which provides a comprehensive model for introducing and sustaining blended learning in educational institutions. The framework emphasizes institutional support, faculty development, and strategic planning—elements that remain challenges in Kazakhstan's educational landscape. Similarly, the 2012 article "Blended Learning Research in Higher Education and K-12 Settings" by Halverson, Graham, Spring, and Drysdale explores the transformative potential of blended learning in schools and universities, offering insights into its systemic impact. These studies collectively highlight the structured and systematic approach taken in Western contexts, which contrasts with Kazakhstan's early-stage implementation.

More recent contributions further expand on the evolution of blended learning. For instance, Tonbuloglu and Tonbuloglu (2023) in their article "Trends and Patterns in Blended Learning Research (1965–2022)" analyze how blended learning has evolved from exclusive, standardized models to more inclusive, learner-centered approaches. The authors highlight the shift toward personalized learning strategies and the incorporation of technologies that cater to diverse student needs. This perspective is particularly relevant for Kazakhstan, where inclusivity in education remains a critical goal.

Adding to this discussion, Srivastava's (2022) "Evolution of Blended Learning: Analyzing Historical Developments and Future Directions" examines the historical progression of blended learning and proposes strategies for addressing digital inequality. The article underscores the necessity of developing effective frameworks that enable equitable access to blended learning resources. Similarly, Castro's (2019) "Blended Learning in Higher Education: Trends and Capabilities" explores the role of data analytics in personalizing education and protecting student privacy. Castro emphasizes that blended learning offers opportunities for tailoring educational materials and supplementary resources, ensuring greater adaptability to individual student needs.

These articles collectively demonstrate that blended learning has not only become a cornerstone of modern education in the West but also continues to evolve as an inclusive and personalized approach to teaching. For Kazakhstan, these insights offer a valuable roadmap for addressing current challenges and optimizing blended learning practices to meet the unique needs of its educational system.

Methodology & Research Materials

Blended learning, while officially introduced into the Kazakhstani educational system many years ago, has only recently begun to evolve into a more structured and significant part of the national education framework. Despite its earlier introduction, blended learning gained prominence and widespread application only after the COVID-19 pandemic, when the necessity of online education became unavoidable. Even now, the system remains underdeveloped, with ongoing adjustments and improvements needed to align it with modern blended education standards. Existing platforms and tools used in Kazakhstan often fall short of addressing the requirements of contemporary approaches to blended learning, leaving significant gaps in its implementation.

Given the limited availability of literature and research specifically focused on blended learning in Kazakhstan, this study relies on the analysis of international academic resources.

Western countries, where blended learning has already become a normalized part of education, offer valuable insights and frameworks. These systems have progressed through stages of development that Kazakhstan is only beginning to navigate. Consequently, it is both logical and justified to use analytical data, studies, and best practices from these countries to draw parallels and propose strategies for the Kazakhstani context.

The research materials for this study primarily include international academic articles, books, and reports that detail the development, challenges, and optimization strategies of blended learning. These sources provide a foundation for understanding how blended learning has evolved in more advanced educational systems and offer a comparative lens for analyzing Kazakhstan's current trajectory.

In addition to these materials, this study incorporates the researcher's personal experience in international higher education. As a former assistant professor at Sapienza University of Rome, the

researcher has firsthand knowledge of teaching practices and the integration of blended learning in a global academic environment. This unique perspective enables a deeper understanding of how international methodologies can be adapted to address the challenges faced by the Kazakhstani educational system.

This methodology, combining international academic literature with practical teaching experience, ensures a comprehensive and nuanced approach to analyzing blended learning. It allows the study to critically evaluate the current state of blended learning in Kazakhstan while proposing actionable recommendations for its optimization and development.

Research Outcomes

Fostering Inclusivity and Accessibility through Blended Learning

Addressing the first research question, “How can blended learning foster inclusivity and improve access to information in Kazakhstan’s education system?”, reveals several significant insights and opportunities for transformative change.

To begin with, Kazakhstan is likely to position blended learning as a systemic and foundational element of its educational framework. This trajectory is expected to reflect aspects of the American model of blended learning implementation, given its proven effectiveness in various contexts. The alignment is logical not only due to similarities in economic stages and diplomatic cooperation but also because it provides a tested framework adaptable to Kazakhstan’s unique needs. While cultural and historical differences between the two nations are apparent, adopting and tailoring this model offers a pragmatic approach to advancing educational inclusivity in Kazakhstan.

Furthermore, blended learning, by its very nature, combines online and offline instructional methods, thereby creating opportunities for inclusivity that traditional educational systems often lack. For instance, this model could enable students unable to attend in-person classes due to physical disabilities, temporary illnesses, or logistical barriers to participate seamlessly in online learning. Consequently, this format allows such students to remain engaged with the curriculum, maintain their academic momentum, and preserve their cognitive and learning capabilities. In addition, the regular alternation between online and offline formats has been shown to enhance neuroplasticity and foster adaptability, which are crucial for learners in an ever-changing world.

Moreover, the widespread adoption of blended learning in Kazakhstan is poised to contribute significantly to the development of both hard and soft skills among students. Through consistent interaction with digital resources, students will be better equipped to evaluate and process information critically, an essential skill in the modern era. This will not only prepare them for academic success but also position them to adapt to future innovations, such as the rapid integration of artificial intelligence into daily life. For children raised in a predominantly digital information environment, these competencies will prove invaluable in navigating the complexities of the 21st century.

Additionally, blended learning holds the potential to revolutionize higher education in Kazakhstan. Students from rural or remote areas who may lack the resources to relocate to urban centers or afford the expenses associated with traditional universities could access high-quality education through online platforms. This approach not only democratizes access to education but also helps bridge the gap between underserved and privileged populations. By reducing geographical and economic barriers, blended learning has the potential to create a more equitable educational environment.

In summary, the implementation of blended learning in Kazakhstan represents a strategic opportunity to enhance inclusivity and expand access to education at multiple levels. By addressing the needs of students with diverse challenges and equipping them with critical thinking and adaptability skills, blended learning serves as a transformative solution.

Furthermore, its potential to democratize higher education underscores its importance as a tool for fostering social equity. Thus, the adoption of this model is not merely an adaptation to global trends but a forward-thinking response to the unique needs of Kazakhstan’s evolving educational landscape.

Challenges in Implementing Blended Learning in Kazakhstan

Addressing the second research question, “What are the primary barriers and challenges to

implementing blended learning at deeper levels in Kazakhstani schools and universities?”, highlights several significant obstacles that must be overcome to achieve widespread and effective integration of this educational model.

One of the most pressing challenges is the lack of access to necessary digital resources among students and families. Many families in Kazakhstan cannot afford the technological devices required for blended learning, such as laptops or tablets. Moreover, internet access remains a significant issue, particularly in rural areas where stable Wi-Fi connections and fiber-optic networks are not yet widely available. Without reliable connectivity, the potential of blended learning is severely restricted.

Addressing these issues requires substantial government support to sponsor digital inclusion initiatives, provide subsidized or free devices for underprivileged students, and expand broadband infrastructure nationwide. This aligns with international practices, as discussed by Tonbuloglu and Tonbuloglu (2023), who highlight the importance of technological infrastructure for creating equitable access to education.

Another critical challenge is the lack of human resources in the education sector. Over recent years, fewer high school graduates in Kazakhstan have chosen teaching as a career path, leading to a growing shortage of young, digitally proficient educators. This shortage not only limits the potential for innovation in blended learning but also hampers the exchange of knowledge between experienced teachers and younger professionals. As Graham, Woodfield, and Harrison (2013) point out, faculty training and generational collaboration are crucial for the successful adoption of blended learning.

The reluctance of more experienced teachers to transition to blended models, often due to limited digital literacy and resistance to change, further exacerbates the problem. Without a sufficient influx of young specialists, the implementation of blended learning across schools and universities remains stagnant.

The legal framework surrounding blended learning presents another significant challenge. Ensuring the protection of personal data, including students' and teachers' names, grades, assessments, passwords, and sensitive personal information, is critical. Without robust data privacy regulations and enforcement mechanisms, blended learning systems remain vulnerable to breaches and misuse. As noted by Castro (2019), safeguarding student data and ensuring privacy are fundamental requirements for building trust in any digital or blended education system.

Parental attitudes toward blended learning also play a pivotal role in its success. Many parents, particularly those from older generations, struggle to view blended learning as a legitimate and comprehensive educational model. This resistance often stems from a lack of familiarity with digital tools and methods. As a result, students may face additional difficulties not only in mastering new material but also in adapting to fundamentally different approaches to learning.

Effective parental engagement strategies, including informational campaigns and training programs, are essential to bridge this gap. By fostering understanding and collaboration between parents, students, and educators, the transition to blended learning can be made smoother and more effective.

In summary, the successful implementation of blended learning in Kazakhstan faces several critical challenges, including inadequate digital infrastructure, a shortage of qualified teachers, insufficient legal protections, and limited parental support. Addressing these issues will require coordinated efforts from the government, educational institutions, and society as a whole. By learning from international best practices, as discussed by Dziuban et al. (2018) and Srivastava (2022), Kazakhstan can take steps to mitigate these challenges and create a more inclusive, effective, and sustainable blended learning ecosystem.

Optimizing Blended Learning in Kazakhstan: Addressing the Third Research Question

The third research question, “How can blended learning practices be optimized in different regions of Kazakhstan using insights and methods from international educational systems?”, emphasizes the need for structural, institutional, and legal advancements to ensure the effective integration and sustainability of blended learning.

The first step in optimizing blended learning involves creating a comprehensive legal and institutional foundation. The legal framework should safeguard and regulate all aspects of blended learning, including data protection, accessibility, and the integration of digital tools. Beyond legal protections, institutions of higher education must take a proactive role in preparing professionals who possess not only theoretical knowledge but also practical skills in blended learning methodologies.

Specialized training centers, such as professional development and retraining programs, are essential to support current educators in adapting to the evolving demands of blended learning. These centers would provide resources, training, and certifications to enable teachers to navigate the complexities of this educational model effectively.

For blended learning to thrive, it must become a highly structured and organized system. Teachers must have access to well-defined lesson plans, comprehensive teaching resources, and standardized guidelines to ensure consistency and accessibility for students. Ideally, these resources should be consolidated into centralized platforms, available 24/7, to facilitate continuous learning.

Moreover, educators must embrace their multifaceted role not only as teachers but also as mentors, guides, and supporters for their students. The evolution of the teacher's role now includes acting as facilitators who enable students to process and apply large volumes of information efficiently. This requires a shift in focus toward fostering interactive, engaging, and practical online learning environments.

To meet the demands of blended learning, teachers must be equipped with diverse skill sets, including the ability to develop interactive materials, design digital assessments, and integrate multiple educational technologies. Teachers should focus on creating dynamic and engaging assignments that are both accessible and practical for students. The aim is to make the learning process more efficient, inclusive, and engaging, enabling students to connect concepts and apply them to real-world scenarios.

The ability to “connect the dots” is particularly critical in this context. Teachers must guide students in understanding how disparate pieces of knowledge fit together, ensuring that the learning process is not only educational but also meaningful. This shift demands continuous professional development, supported by institutional and governmental initiatives.

The optimization of blended learning also relies heavily on governmental support. This includes both financial and legal assistance. Financially, grants and subsidies can enable schools and universities to invest in digital infrastructure, training programs, and centralized resource platforms. Legally, updated policies must address the unique needs of blended learning, ensuring that educators and students alike can benefit from a supportive and adaptive framework.

For blended learning to succeed, it must cater to the diverse needs of students across Kazakhstan. Teachers must prioritize the creation of rational, fast, and accessible resources that cater to varied learning styles. Interactive online tools, personalized assignments, and engaging assessments are key to ensuring that students remain motivated and invested in their education.

As it is important to highlight, the optimization of blended learning in Kazakhstan requires a multifaceted approach that includes legal safeguards, structural improvements, teacher training, and governmental support. By adopting best practices from international systems and tailoring them to Kazakhstan's unique context, the country can build a blended learning framework that is not only effective but also inclusive, adaptable, and sustainable. This process will require collaboration across all levels of education, ensuring that both educators and students are empowered to succeed in this evolving educational paradigm.

Conclusion & Reflections

The implementation of blended learning represents a process of educational transformation that has already begun and cannot be reversed. It is a natural progression in the evolution of modern education, reflecting the dynamic needs of societies shaped by rapid technological advancements. The primary goal of education has always been to prepare students for the challenges they will face in their professional and personal lives. In the current era, where technological progress occupies

a central place in every societal agenda, Kazakhstan must follow the example of its Western counterparts by placing greater emphasis on the educational sector. Blended learning should not merely be a component of the educational framework but a fundamental principle underpinning the entire system.

The inclusivity offered by blended learning provides not only measurable educational benefits but also social support for those who, due to various circumstances, cannot attend offline classes. It ensures that all students, regardless of their physical or logistical constraints, have access to quality education and the tools necessary to succeed in a rapidly evolving world. This adaptability is essential for integrating every individual into society as a contributing and capable member.

For these reasons, the state must take comprehensive measures to support the adoption and expansion of blended learning. This includes not only financial and infrastructural support but also legislative and institutional backing. The future of any nation is inherently tied to the capabilities of its youth—a sentiment echoed by the President of Kazakhstan, Kassym-Jomart Tokayev. Thus, it becomes imperative for Kazakhstan, at both the governmental and societal levels, to invest in its younger generations.

Educators, in particular, bear a significant responsibility in this endeavor. They must rise to the challenge of providing students with the best possible educational experience, incorporating both international practices and localized development strategies. By doing so, Kazakhstan can ensure that its youth are equipped with the skills, knowledge, and adaptability necessary to thrive in the modern world, thereby securing a prosperous future for the nation.

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