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GAMIFICATION AS A CURRENT TREND OF AGRICULTURAL DIGITAL EDUCATION

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The article explores the rising trend of gamification in agricultural digital education, highlighting its significance in modernizing the learning process within this sector. Gamification, which involves the integration of game-like features into educational content, is shown to enhance student engagement and motivation. The article discusses how this approach allows for the simulation of real-world agricultural scenarios, providing learners with practical experience in a risk-free environment. Additionally, it examines the role of gamification in fostering personalized learning experiences, ensuring that content is tailored to individual needs and helping students acquire the skills necessary for success in the evolving field of agriculture. The article underscores the importance of gamification as a tool for bridging the gap between theoretical knowledge and practical application in agricultural education.

Keywords: gamification, agriculture, digital education, knowledge, development.

Gamification has emerged as a significant trend in various fields, and its application in agricultural digital education is particularly noteworthy. This approach to learning, which incorporates game-like elements into educational contexts, has proven to be an innovative tool in engaging learners and enhancing their understanding of complex agricultural concepts. In the realm of agriculture, where practical experience and theoretical knowledge must be tightly integrated, gamification offers a unique solution to bridging this gap [1].

The rise of digital education has transformed traditional learning environments, allowing for more interactive and flexible approaches. Gamification, as a part of this digital revolution, takes advantage of modern technology to create immersive learning experiences that are not only educational but also highly engaging. In agricultural education, where the subject matter often involves intricate processes and long-term outcomes, gamification provides an effective way to simulate real-world scenarios. By doing so, it enables learners to experiment with different strategies, make decisions, and witness the consequences in a risk-free environment [2].

One of the key benefits of gamification in agricultural digital education is its ability to increase student motivation and participation. Traditional methods of teaching agriculture, which often rely on lectures and textbooks, can sometimes fail to capture the interest of students who are more accustomed to interactive and visually stimulating content. Gamification addresses this issue by introducing elements such as points, badges, leaderboards, and challenges, which can make learning more dynamic and enjoyable [3]. This approach not only keeps students engaged but also encourages them to take an active role in their education, leading to better retention of information and a deeper understanding of agricultural practices.

Moreover, gamification in agricultural education fosters a more hands-on learning experience. Through virtual simulations and role-playing games, students can take on the roles of farmers, agronomists, or other agricultural professionals, allowing them to experience the challenges and rewards of these careers first-hand. This experiential learning is crucial in

agriculture, where understanding the practical application of knowledge is essential [4]. By engaging in these simulated environments, students can develop critical thinking and problem-solving skills that are directly applicable to real-world agricultural situations.

In addition to enhancing student engagement and providing practical experience, gamification also offers the potential for personalized learning. Digital platforms can track students' progress and adapt the content to their individual needs, ensuring that each learner is challenged at the appropriate level. This personalized approach is particularly beneficial in agricultural education, where students may have varying levels of prior knowledge and experience [5]. By tailoring the learning experience to each student, gamification ensures that all learners can progress at their own pace and achieve a comprehensive understanding of the subject matter.

The integration of gamification into agricultural digital education also reflects broader trends in the digital transformation of the agricultural sector. As agriculture becomes increasingly reliant on technology and data-driven decision-making, it is essential that educational approaches evolve to prepare students for these changes. Gamification, with its emphasis on interactive and adaptive learning, aligns well with the skills and knowledge required in modern agriculture [3]. By incorporating game-based learning into agricultural education, institutions can better equip students with the competencies they need to succeed in a rapidly changing industry.

The future of gamification in agricultural digital education appears promising, with its role expected to expand as technology continues to evolve. As agricultural practices increasingly integrate digital tools and data-driven approaches, educational methods must also adapt to prepare future professionals. Gamification, with its interactive and immersive nature, is likely to become a central component of agricultural education, offering students more engaging and practical learning experiences [2].

In the coming years, we can anticipate the development of more sophisticated gamified platforms tailored specifically for agriculture. These platforms will likely include advanced simulations of farming operations, environmental management, and crop production, allowing students to experiment with different strategies and observe outcomes without real-world risks [4]. Such tools will not only enhance learning but also provide insights into sustainable practices and innovative technologies.

Furthermore, the trend towards personalized education is expected to grow, with gamification playing a key role in customizing learning pathways. As artificial intelligence and machine learning technologies advance, gamified educational systems will become more adept at adapting content to individual learning styles and needs, ensuring that all students, regardless of their background, can achieve a thorough understanding of agricultural concepts [2].

As the agricultural sector faces challenges such as climate change, food security, and the need for sustainable practices, the importance of well-trained professionals will only increase. Gamification, by making education more accessible, engaging, and effective, will be instrumental in equipping the next generation of agricultural leaders with the skills and knowledge necessary to address these global issues [1].

In conclusion, gamification represents a powerful trend in agricultural digital education, offering numerous benefits that traditional teaching methods may lack. By making learning more engaging, hands-on, and personalized, gamification enhances students' understanding of complex agricultural concepts and prepares them for the challenges of modern agriculture. As the agricultural sector continues to evolve, the role of gamification in education is likely to become even more prominent, driving innovation and improving educational outcomes in this critical field.

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ПЕРЕВАГИ КООПЕРАЦІЇ В АГРОПРОМИСЛОВОМУ КОМПЛЕКСІ: ОРГАНІЗАЦІЙНІ ТА УПРАВЛІНСЬКІ АСПЕКТИ

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Organizational and managerial aspects of cooperation play a crucial role in the formation and development of cooperatives, ensuring their ability to adapt to changing market conditions, efficiently utilize available resources, and enhance economic efficiency. This work is dedicated to analyzing the advantages of cooperation in the agro-industrial complex, with a particular focus on its organizational and managerial aspects, which are essential for the success of the cooperative movement. The analysis of these aspects helps to understand how cooperation can become an effective tool for agricultural development and sustainable rural development.

Keywords: organizational aspects, managerial aspects, cooperation Agro-industrial complex, economic efficiency, cooperative movement.

Сучасний розвиток агропромислового комплексу базується на багатьох взаємозалежних один від одного факторів, складові яких і обумовлюють економічну ефективність діяльності підприємств, які орієнтуються на виробництво аграрної продукції. Складовими цих факторів є не лише сприятливі кліматичні та природні явища, розвиток аграрної освіти та науки, впровадження нових інноваційних технологій, але й ефективна форма організації виробництва. У цьому аспекті кооперація може слугувати ефективним механізмом розвитку сучасних сільських територій. Тим самим підвищується реальна ефективність діяльності суб'єктів агропромислового комплексу. Ефективна організація управління при кооперації аграрних комерційних структур сприяє підвищенню ефективності виробництва, зниженню витрат та оптимізації управлінських процесів. Саме ефективне управління організаційними процесами при кооперації дозволяє об'єднувати ресурси та потенціал дрібних та середніх сільськогосподарських виробників, що надає їм можливості мати змогу конкурувати на непростому ринку сільськогосподарської продукції з великими агропромисловими компаніями та агрохолдингами. Більше того, саме