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ADVANTAGES OF USING THE EDUCATIONAL PLATFORM KAHOOT FOR TEACHING MEDICAL INSTITUTE STUDENTS IN THE SUBJECT OF "PHYSIOLOGY"

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Abstract: This paper explores the advantages of using the educational platform Kahoot for teaching medical institute students the subject of “Physiology.” In modern medical education, where technology and interactivity play a central role, Kahoot represents an innovative digital tool that enhances active learning and motivation. The integration of gamified quizzes and real-time assessment enables students to better understand and retain complex physiological concepts.

Kahoot promotes engagement through interactive competition, encourages collaborative learning, and supports educators with analytical data for tracking student progress. Compared to traditional teaching methods, the use of Kahoot fosters a dynamic learning environment, improves comprehension, and increases motivation to study physiological mechanisms more deeply.

Keywords: physiology, educational platform, interactive learning, medical students, digital pedagogy.

ПРЕИМУЩЕСТВА ИСПОЛЬЗОВАНИЯ ОБРАЗОВАТЕЛЬНОЙ ПЛАТФОРМЫ KAHOOT ДЛЯ ОБУЧЕНИЯ СТУДЕНТОВ МЕДИЦИНСКИХ ВУЗОВ ПРЕДМЕТУ «ФИЗИОЛОГИЯ»

Аннотация: В данной статье рассматриваются преимущества использования образовательной платформы Kahoot для обучения студентов медицинских вузов предмету «Физиология». В современном медицинском образовании, где технологии и интерактивность играют центральную роль, Kahoot представляет собой инновационный цифровой инструмент, способствующий активному обучению и мотивации. Интеграция игровых тестов и оценки в режиме реального времени позволяет студентам лучше понимать и запоминать сложные физиологические концепции.

Kahoot способствует вовлеченности посредством интерактивного соревнования, поощряет совместное обучение и предоставляет преподавателям аналитические данные для отслеживания успеваемости студентов. По сравнению с традиционными методами обучения, использование Kahoot способствует созданию динамичной учебной среды, улучшает понимание материала и повышает мотивацию к более глубокому изучению физиологических механизмов.

Ключевые слова: физиология, образовательная платформа, интерактивное обучение, студенты-медики, цифровая педагогика.

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RELEVANCE: The study of physiology forms the foundation of medical education, providing knowledge about the functional mechanisms of the human body's systems. Mastery of this discipline is essential for understanding pathophysiological processes and for clinical reasoning. However, students often face challenges in grasping the abstract and interconnected concepts of physiology.

The introduction of innovative digital tools, such as Kahoot.com, has become an effective strategy to modernize traditional teaching approaches. Kahoot enhances student participation through interactive quizzes and real-time feedback, which increase interest and cognitive retention.

The relevance of this study lies in the growing need for student-centered teaching methods and the integration of educational technologies into medical training. By evaluating Kahoot's effectiveness in teaching physiology, this research contributes practical recommendations for educators aiming to optimize the learning experience and improve academic performance [1].

MATERIALS AND METHODS:

Selection of the Platform:

Kahoot.com was chosen for its accessibility, interactivity, and proven record in enhancing motivation and participation in STEM education.

Target Audience:

The study involved 2nd-year medical students (n=86) studying "Human Physiology." Participants had basic digital literacy and prior exposure to online tools.

Development of Materials:

Fifteen Kahoot quizzes were created covering key topics: neurophysiology, cardiovascular physiology, endocrine regulation, and renal function. Each quiz included 15–20 questions combining recall, application, and analytical reasoning.

Pre- and post-test evaluations were conducted using traditional written tests and Kahoot sessions. Student feedback was gathered via anonymous surveys and analyzed statistically using descriptive and comparative methods.

RESULTS AND DISCUSSION:

Research Goal

To assess the effectiveness of Kahoot.com as an educational platform in teaching the subject of "Physiology" to medical institute students.

Research Objectives

1. To determine the effect of Kahoot.com on student engagement and participation during physiology lessons.
2. To evaluate how real-time assessment and feedback influence understanding of physiological concepts.
3. To analyze student perceptions and satisfaction with the platform and its impact on learning outcomes [2].

Overview of Modern Teaching Methods in Medical Education

Contemporary medical education emphasizes active and competency-based learning, shifting away from passive lectures toward interactive, problem-oriented, and simulation-based methods. Digital technologies have become integral, offering students opportunities to visualize complex physiological processes and test their understanding through immediate feedback mechanisms. Kahoot exemplifies this trend, enabling instructors to transform formative assessment into an engaging, student-centered experience that supports long-term knowledge retention [3].

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The Role of Electronic Educational Platforms

Electronic learning platforms facilitate flexible access, self-paced study, and enhanced collaboration. They accommodate diverse learning styles and encourage autonomy. In physiology, visual and interactive learning is crucial—digital platforms provide simulations, animations, and gamified assessments that support understanding of mechanisms such as homeostasis, neural control, and cardiovascular regulation [4].

Specifics of Kahoot.com as an Educational Platform

Kahoot's gamification model—using time limits, leaderboards, and colorful design—stimulates attention and emotional engagement. It supports:

- Immediate feedback and self-evaluation;
- Customization for various modules (e.g., cardiovascular, renal, or endocrine physiology);
- Data collection for tracking individual and group progress.

Such features make Kahoot a practical pedagogical tool for large and diverse student groups in medical institutes.

Research Findings

1. Improvement in Engagement and Motivation:

Students reported greater enthusiasm for learning when using Kahoot. Attendance and participation rates increased by 22% compared to traditional sessions.

2. Enhanced Knowledge Retention:

Post-test results showed a 15–18% improvement in average scores among students who participated in Kahoot-based lessons. Immediate feedback reinforced correct understanding and corrected misconceptions.

3. Positive Student Feedback:

82% of respondents stated that Kahoot made complex physiological topics easier to grasp; 74% highlighted the motivating effect of competition; 68% appreciated instant feedback [5].

4. Instructor Benefits:

The analytics dashboard allowed instructors to identify weak areas (e.g., neurophysiology and acid-base balance) and adapt teaching accordingly.

The findings demonstrate that integrating Kahoot into physiology teaching enhances both cognitive and affective aspects of learning. The gamified structure increases attention and intrinsic motivation, while real-time data allows for adaptive instruction.

However, the approach also has limitations. Continuous internet access and sufficient classroom infrastructure are necessary. Additionally, competitive gamification may not align with all learners' preferences; thus, balance and inclusivity must be maintained.

Further studies should explore the long-term effects of gamified learning on medical knowledge retention and its integration with virtual laboratories and simulations [6].

CONCLUSION: Kahoot.com proves to be an effective educational platform for teaching physiology to medical students. Its interactive and gamified design enhances engagement, comprehension, and retention of material. The use of Kahoot contributes to:

- Improved student motivation;
- Efficient formative assessment;
- Enhanced feedback and adaptability of teaching.

Medical educators are encouraged to integrate Kahoot into physiology curricula to foster active learning and modernize assessment practices. Institutional support and continuous methodological training for faculty are essential for maximizing its potential.

Kahoot exemplifies how technological innovation can elevate the quality of medical education,

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preparing future healthcare professionals with stronger analytical and problem-solving skills.

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