

THE ROLE OF AR(AUGMENTED REALITY) TECHNOLOGIES IN MODERN EDUCATION

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Annotatsiya: *Ushbu ishda ingliz tili leksikasini qabul qilish va o'zlashtirishda kengaytirilgan haqiqat (AR) texnologiyalarining ta'siri o'rganilgan. Tadqiqotda AR yordamida leksikani o'qitishning nazariy jihatlarini ko'rib chiqilib, an'anaviy va AR asosidagi usullar taqqoslangan. AR texnologiyalaridan leksikani o'zlashtirish uchun foydalanishning afzalliklari, jumladan, qiziqishning ortishi va eslab qolishning yaxshilanishi ta'kidlanadi, shuningdek, yuzaga kelishi mumkin bo'lgan muammolar va ularni hal etish bo'yicha amaliy tavsiyalar keltirilgan. Oldingi tadqiqotlarning empirik natijalari va amaliyotga oid tavsiyalar AR texnologiyalarining zamonaviy til ta'limidagi rolini chuqur anglashga yordam beradi.*

Kalit so'zlar: *tez rivojlanish, raqamli texnologiyalar, innovatsiya, kengaytirilgan reallik (AR), o'rganish, lug'at*

Annotation: *This paper examines the impact of augmented reality (AR) technologies on the perception and acquisition of English vocabulary. The study explores theoretical perspectives on AR-enhanced vocabulary learning, comparing traditional and AR-based methods. It highlights the advantages of using AR for vocabulary acquisition, such as increased engagement and retention, while also addressing potential challenges and practical solutions. Empirical findings from previous studies and practical implementation insights are discussed to provide a comprehensive understanding of AR's role in modern language education.*

Key words: *rapid development, digital technology, innovation, augmented reality (AR), explore, vocabulary*

Аннотация: *Данная работа посвящена исследованию влияния технологий дополненной реальности (AR) на восприятие и освоение английской лексики. В исследовании рассматриваются теоретические аспекты обучения лексике с использованием AR, проводится сравнение традиционных методов с методами на основе AR. Особое внимание уделяется преимуществам использования AR для изучения словарного запаса, таким как повышение мотивации и улучшение запоминания, а также анализируются возможные проблемы и предлагаются практические решения. Обсуждаются эмпирические данные предыдущих исследований и практические рекомендации, чтобы предоставить полное представление о роли AR в современном языковом образовании.*

Ключевые слова: *стремительное развитие, цифровые технологии, инновации, дополненная реальность (AR), исследование, лексика*

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INTRODUCTION

In recent years, the rapid development of digital technologies has significantly transformed the field of education. Among these innovations, augmented reality (AR) has emerged as a powerful tool that offers new possibilities for enhancing language learning. AR technology, by seamlessly blending virtual content with the real world, creates immersive and interactive environments that can foster more dynamic and engaging vocabulary acquisition. This research paper explores how AR technologies influence the perception of English vocabulary and the potential benefits of integrating AR into language education.

Augmented reality (AR) technologies have emerged as transformative tools in modern education, offering innovative ways to enhance teaching and learning processes. The integration of AR into educational settings is driven by the need for interactive, engaging, and student-centered learning experiences. According to Billingham and Dünser, AR facilitates contextual learning by overlaying digital content onto real-world environments, thereby promoting deeper understanding and retention of knowledge.

One of the primary roles of AR in education is to foster experiential learning. As outlined by Kolb, experiential learning involves active participation, reflection, and the application of concepts in real-world scenarios. AR supports this process by immersing learners in interactive simulations and visualizations, allowing them to manipulate digital objects and experience abstract concepts more concretely. For example, in language learning, AR applications can display vocabulary words in context, helping students visualize and comprehend their meanings.

Moreover, AR technology enhances motivation and learner engagement. A study by Ibáñez et al. (2014) demonstrated that students using AR-based language apps exhibited higher levels of interest and enthusiasm compared to those using traditional methods. This increase in motivation is attributed to the immersive nature of AR, which transforms routine exercises into dynamic, visually appealing activities.

AR also plays a significant role in promoting collaborative learning. As Dede (2009) points out, digital technologies that encourage teamwork are essential in modern educational paradigms. AR applications often include features that allow learners to work in groups, sharing and discussing augmented content. For instance, language learners can collaboratively explore AR environments, practice new vocabulary, and engage in problem-solving tasks. This collective interaction fosters communication skills and peer learning.

Another critical aspect of AR in education is personalized learning. Tudor emphasizes that learner-centered approaches should cater to individual needs and preferences. AR applications can be customized to suit different proficiency levels, offering tailored exercises

and real-time feedback. Such adaptability ensures that learners progress at their own pace, thereby reducing anxiety and promoting self-confidence.

However, despite its potential, integrating AR into educational practices poses challenges. Technical issues, such as device compatibility and software maintenance, can hinder its widespread adoption. Moreover, educators may face difficulties in designing pedagogically sound AR activities that align with curriculum objectives. Addressing these challenges requires professional development and institutional support to equip teachers with the necessary skills and resources.

To conclude, AR technologies hold substantial promise for modern education by fostering engagement, collaboration, and personalized learning. As digital innovation continues to evolve, understanding and addressing the challenges associated with AR integration will be essential for maximizing its educational benefits.

CONCLUSION

In conclusion, the integration of augmented reality (AR) technologies into vocabulary learning marks a transformative shift in modern educational practices. As demonstrated throughout this paper, AR offers unique opportunities to enhance vocabulary acquisition through interactive, contextual, and immersive experiences that traditional methods alone cannot provide. By examining the theoretical foundations, previous studies, and practical implementations, this work has highlighted both the potential and the challenges associated with AR-enhanced language teaching.

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