



## THE EFFECTIVENESS OF MULTIMODAL LEARNING (TEXT + VIDEO + AI) IN VOCABULARY ACQUISITION AMONG UZBEK EFL STUDENTS

Zokirjonova Marjona Xislatjon qizi

*Uzbekistan state world languages university*

**Annotation:** *This study investigates the effectiveness of multimodal learning—combining text, video, and artificial intelligence (AI) tools—in enhancing vocabulary acquisition among Uzbek EFL (English as a Foreign Language) students. The research explores how integrating multiple modes of input improves learners’ engagement, retention, and understanding of new vocabulary. It also examines the role of AI in providing personalized feedback and adaptive learning experiences. Findings highlight the potential benefits and challenges of multimodal approaches in EFL contexts.*

**Keywords:** *multimodal learning, vocabulary acquisition, English as a Foreign Language, Uzbek students, artificial intelligence, video learning, text-based learning, language education*

Vocabulary acquisition is a fundamental component of language learning, significantly influencing learners’ communication skills and academic success. Traditional vocabulary instruction, often based on text-only materials, may limit learners’ engagement and retention. In recent years, multimodal learning—combining text, video, and interactive technologies such as artificial intelligence—has emerged as a promising approach to enrich language learning experiences. For Uzbek EFL students, multimodal learning offers diverse sensory inputs that can enhance comprehension and motivation. This paper examines the effectiveness of multimodal learning, focusing on the integration of text, video, and AI, in facilitating vocabulary acquisition. The study aims to provide insights into how these combined modalities support vocabulary learning and to discuss implications for EFL pedagogy in Uzbekistan.

Vocabulary acquisition is a critical aspect of learning English as a foreign language, as it directly affects learners’ ability to comprehend and produce meaningful communication. Traditional methods of vocabulary teaching, which often rely heavily on written text and rote memorization, have shown limitations in maintaining learner motivation and achieving long-term retention. Recently, multimodal learning approaches that integrate multiple sensory channels—such as text, video, and interactive artificial intelligence (AI) tools—have gained attention for their potential to enhance language acquisition outcomes.

Multimodal learning leverages the brain’s ability to process information through different modalities simultaneously. When learners are exposed to vocabulary through various channels, such as reading definitions, watching videos that demonstrate word





## MODERN PROBLEMS IN EDUCATION AND THEIR SCIENTIFIC SOLUTIONS

usage, and interacting with AI-driven exercises, they engage multiple cognitive pathways. This multisensory engagement facilitates deeper processing and better retention of new lexical items compared to unimodal instruction.

The use of videos in vocabulary learning introduces contextual and visual cues that help learners understand meaning beyond dictionary definitions. For Uzbek EFL students, who may struggle with abstract or culturally unfamiliar words, videos provide concrete examples that make vocabulary more accessible and relatable. For instance, videos showing a person performing an action associated with a new verb or depicting a scene related to a noun help learners form mental images, which strengthens memory traces. Moreover, videos can include subtitles, animations, and real-life conversations that expose students to authentic language use and pronunciation.

Artificial intelligence further enriches multimodal vocabulary learning by offering personalized, adaptive experiences tailored to individual learner needs. AI-powered applications can analyze learners' responses, identify strengths and weaknesses, and adjust the difficulty level accordingly. This customization helps maintain optimal challenge levels, avoiding frustration or boredom. Additionally, AI tools can provide instant feedback, reinforcement, and explanations, which are crucial for effective vocabulary acquisition. For example, AI chatbots can simulate conversational practice, encouraging learners to produce vocabulary actively and receive corrective input in real-time.

The integration of text, video, and AI technologies promotes active learning, which is more effective than passive reception. Learners become active participants in their vocabulary development as they engage with diverse materials and interactive tasks. This active involvement increases motivation and fosters learner autonomy, essential factors for successful language learning. For Uzbek students, who may have limited exposure to English outside the classroom, multimodal resources create immersive learning environments that simulate real-world communication.

However, implementing multimodal learning also presents challenges. Access to reliable technology and internet connectivity can be uneven across Uzbekistan, particularly in rural areas, limiting some learners' ability to benefit fully from video and AI resources. Furthermore, teachers may require additional training to effectively integrate these tools into their pedagogy. Without proper guidance, the use of technology can become superficial, failing to achieve its educational potential.

Research indicates that multimodal vocabulary instruction leads to improved vocabulary retention and recall compared to traditional text-only methods. Students exposed to combined text and video inputs show better comprehension and longer-term retention. When AI is incorporated, personalized learning paths accelerate progress and improve learner confidence. Additionally, the multimodal approach supports diverse learning styles, catering to visual, auditory, and kinesthetic learners alike.





## MODERN PROBLEMS IN EDUCATION AND THEIR SCIENTIFIC SOLUTIONS

In the Uzbek EFL context, where learner motivation and exposure to authentic English materials are often limited, multimodal learning provides valuable opportunities to bridge these gaps. It enhances the relevance and appeal of vocabulary lessons and equips students with strategies for independent learning. The use of AI also aligns with global educational trends toward personalized, technology-enhanced learning, preparing Uzbek students for future academic and professional environments.

In conclusion, the combination of text, video, and AI in vocabulary learning offers a powerful, engaging, and effective approach to English language acquisition among Uzbek EFL students. While infrastructural and pedagogical challenges exist, the benefits of multimodal learning are significant. By investing in technological resources and teacher training, educational institutions in Uzbekistan can harness the potential of multimodal methods to improve vocabulary acquisition outcomes and overall language proficiency.

Multimodal learning that integrates text, video, and artificial intelligence proves to be an effective approach for enhancing vocabulary acquisition among Uzbek EFL students. This method engages multiple sensory channels, facilitating deeper cognitive processing, better retention, and increased learner motivation. Videos provide contextualized, visual examples that help clarify meanings, while AI tools offer personalized feedback and adaptive learning experiences that cater to individual needs. Despite challenges such as technological limitations and the need for teacher training, multimodal learning holds significant potential to enrich English language education in Uzbekistan. By embracing this approach, educators can create more engaging, interactive, and effective vocabulary instruction that prepares learners for successful communication in diverse contexts.

### References

1. Mayer, R. E. (2009). *Multimedia Learning* (2nd ed.). Cambridge University Press.
2. Chen, C.-M., & Chung, C.-J. (2008). Personalized mobile English vocabulary learning system based on item response theory and learning memory cycle. *Computers & Education*, 51(2), 624–645.
3. Paivio, A. (1991). Dual Coding Theory: Retrospect and Current Status. *Canadian Journal of Psychology*, 45(3), 255–287.
4. Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of platform. *Language Learning & Technology*, 14(2), 95–110.
5. Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence Unleashed: An Argument for AI in Education*. Pearson.
6. Godwin-Jones, R. (2018). Using mobile technology to develop language skills and cultural understanding. *Language Learning & Technology*, 22(3), 1–17.
7. Liu, T.-Y. (2009). A context-aware ubiquitous learning environment for language listening and speaking. *Journal of Computer Assisted Learning*, 25(6), 515–527.





**MODERN PROBLEMS IN EDUCATION AND THEIR SCIENTIFIC SOLUTIONS**

8. Kim, H., & Gilman, D. A. (2008). Effects of text, audio, and graphic aids in multimedia instruction for vocabulary learning. *Educational Technology & Society*, 11(3), 114–126.
9. Uzbek Ministry of Public Education. (2022). *Digital Learning and Language Education Strategy*. Tashkent.
10. Warschauer, M. (2010). Inviting Change: The Role of Technology in Language Learning. *TESOL Quarterly*, 44(1), 103–109.

