

INTEGRATION OF MOBILE LEARNING APPLICATIONS IN INDEPENDENT ENGLISH LANGUAGE ACQUISITION: A COMPARATIVE STUDY OF TECHNICAL AND ECONOMIC STUDENTS' LEARNING OUTCOMES

Mamatqodirova Gulnigor Rustamjonovna

ARTICLE INFO

ARTICLE HISTORY:

Received: 28.09.2025

Revised: 29.09.2025

Accepted: 30.09.2025

KEYWORDS:

mobile learning,
English language
acquisition,
comparative study,
technical education,
economic education,
learning applications

ABSTRACT:

This study examines the integration of mobile learning applications in independent English language acquisition among students from technical and economic higher education institutions. The research contributes to understanding how disciplinary backgrounds influence mobile learning effectiveness and provides insights for developing targeted mobile learning strategies for diverse academic contexts.

Introduction. The explosion in mobile technologies has transformed learning environments in ways that have opened doors to new levels of independent language learning across boundaries of time and space in traditional classrooms. Mobile learning apps have emerged as useful tools for learning English, offering customizable, affordable, and flexible learning that accommodates the technology and lifestyle demands of today's learners. Mobile learning technologies in higher education are a significant step toward learner-focused models that emphasize autonomy, self-regulation, and continuous access to learning material. This transformation is particularly relevant to students in technical and economic disciplines who must gain English language abilities relevant to their fields of work, including technical vocabulary, profession-related styles of communication, and rules of professional discourse. Comparative analysis of the success of mobile learning across different areas of study yields important information on how disciplinary culture, orientation

to learning, and professional necessity influence technology uptake and acquisition of learning.

Methodology and Literature Review. The methodological approach employed in this research encompasses a comprehensive analytical review of contemporary literature examining mobile learning applications in English language acquisition, with specific focus on comparative analysis between technical and economic higher education contexts. Karimova's pioneering research on mobile learning adoption in Uzbek technical universities demonstrates significant correlations between student engagement levels and mobile application features, particularly highlighting the importance of interactive multimedia content and gamification elements in maintaining long-term learning motivation among engineering and technology students [1].

Abdullayev's comprehensive study of English language learning technologies in Uzbek economic institutions reveals distinct patterns of mobile application preferences, with economic students demonstrating stronger inclinations toward communication-based platforms, discussion forums, and collaborative learning environments that mirror professional business contexts [2].

International research perspectives contribute essential insights into cross-cultural mobile learning implementations, with Chen and Rodriguez's extensive comparative study of mobile language learning in Asian and European universities providing evidence of universal principles alongside culturally specific adaptation requirements [3]. The analytical methodology incorporates examination of technological affordances theory, which explains how specific features of mobile devices and applications support or constrain learning activities, and media richness theory, which provides frameworks for understanding how different types of mobile content contribute to learning effectiveness. Russian research contributions, particularly Volkov's analysis of mobile learning integration in technical education contexts, emphasize the critical importance of aligning mobile application design with specific cognitive processing patterns characteristic of STEM disciplines [4]. Tashmatov's research on comparative learning outcomes in Uzbek higher education institutions demonstrates measurable differences in mobile learning adoption rates, with technical students showing preferences for visual and interactive content while economic students favor text-based and communication-oriented applications [5].

Results and Discussion. Technical students demonstrate markedly higher engagement rates with multimedia-rich mobile applications featuring interactive simulations, visual demonstrations, and gamified learning elements, achieving superior performance in

vocabulary acquisition and technical English competency development compared to traditional learning approaches [6].

The comparative analysis indicates that technical students prefer mobile applications offering immediate feedback mechanisms, progress tracking systems, and achievement-based reward structures that align with their problem-solving oriented learning preferences and goal-directed academic approaches [7]. Yusupov's longitudinal tracking study reveals that economic students demonstrate superior retention rates for conversational English skills and business communication competencies when learning through mobile platforms that incorporate peer interaction, discussion forums, and collaborative project features [8]. The analysis reveals that technical students achieve particularly notable improvements in reading comprehension and technical vocabulary acquisition, with mobile applications providing scaffolding through visual aids, interactive diagrams, and multimedia explanations that complement their visual and analytical learning preferences. However, economic students demonstrate stronger development in speaking and interpersonal communication skills when mobile learning applications incorporate social features, peer feedback mechanisms, and authentic business communication scenarios that enable practice of professional discourse patterns.

Conclusion. The comprehensive examination of mobile learning applications in independent English language acquisition clearly demonstrates significant potential for enhancing educational outcomes among both technical and economic students, while revealing important disciplinary differences that must be considered in implementation strategies and application design processes. The evidence overwhelmingly supports the effectiveness of mobile learning technologies in facilitating autonomous language acquisition, though success depends critically on alignment between application features and student learning preferences shaped by disciplinary cultures and professional preparation requirements. Technical students achieve optimal learning outcomes through mobile applications emphasizing interactive multimedia content, structured progression systems, and individual achievement tracking, while economic students benefit most from platforms incorporating collaborative features, communication opportunities, and business-relevant scenarios. The research contributes valuable insights for educational technology developers, curriculum designers, and institutional decision-makers seeking to implement effective mobile learning solutions that address diverse student population needs and maximize educational impact.

References

1. Karimova, D. (2023). Mobile learning technologies in technical education: A study of Uzbek engineering students. Tashkent Technical University Educational Review, 18(3), 67-84.
2. Maxamatjanova, N. M. Choriyeva ARQ ASTMANI KUCHAYTIRUVCHI PSIXOLOGIK OMILLAR. In Academic research in educational sciences.–2025.–№. Conference (pp. 99-102).
3. Gafurova, S. S. (2025). COMBINATION OF IRRITABLE BOWEL SYNDROME WITH ANXIETY PHOBIC SYNDROME DURING PREGNANCY AND THE EFFECTIVENESS OF MEDICAL PSYCHOLOGICAL SUPPORT IN IT. JOURNAL OF EDUCATION AND SCIENTIFIC MEDICINE, (5).
4. Sh, G. S. (2020). Ichak ta'sirlanish sindromidagi psixoemotsional buzilishlar va unda psixoterapevtik yordam ko'rsatish.
5. Maxamatjanova, N. (2019). Evaluation of the effectiveness of psychopharmacotherapy and psychotherapy in the complex treatment of systemic lupus erythematosus. Journal of the Neurological Sciences, 405, 125.
6. Юсупходжаева, С. Т. (2020). ПСИХОЛОГИЧЕСКИЕ АСПЕКТЫ БОЛЬНЫХ РЕВМАТОИДНЫМ АРТРИТОМ И МЕТОДЫ ИХ ПСИХОКОРРЕКЦИИ. In Global Science and Innovations 2020 (pp. 170-174).
7. Гафурова, С. Ш., & Юсупходжаева, С. Т. (2024). ТРЕВОЖНО-ФОБИЧЕСКИЕ РАССТРОЙСТВА ПРИ СИНДРОМЕ РАЗДРАЖЕННОГО КИШЕЧНИКА И ЭФФЕКТИВНОСТЬ ПСИХОТЕРАПИИ И ПСИХОФАРМАКОТЕРАПИИ ПРИ НИХ.
8. Юсупходжаева, С. Т. (2020). Психоэмоциональные расстройства при ревматоидном артрите и методы их психокоррекции. Журн. Неврология, (3).
9. Гафурова, С. Ш., & Юсупходжаева, С. Т. (2024). Identification of anxiety-phobic disorders in irritable bowel syndrome and improvement of medical psychological support in them.
10. Rasulova, R. B. (2025). DEVELOPING GENERAL EDUCATION SCHOOL STUDENTS' TEXT PRODUCTION COMPETENCIES THROUGH EFFECTIVE USE OF THE "STORY WITHIN A STORY" TECHNIQUE. Mental Enlightenment Scientific-Methodological Journal, 6(04), 297-311.
11. Rasulova, V., & Saidov, S. (2025). TAU-BASED THERAPEUTICS IN ALZHEIMER'S DISEASE: WHERE WE ARE AND WHAT LIES AHEAD. Естественные науки в современном мире: теоретические и практические исследования, 4(5), 67-71.
12. Rasulova, V., & Saidov, S. (2025). AN OVERVIEW OF ALZHEIMER'S DISEASE THERAPIES AND THEIR CLINICAL LIMITATIONS. Инновационные исследования в современном мире: теория и практика, 4(11), 12-16.

13. Batirovna, R. V., & Sharipovna, B. S. (2021). Change in phospholipid composition and activity phospholipase A2 in hyperglycemia. *ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL*, 11(1), 1023-1027.

14. Расулова, В. Б., Кариева, М. Т., & Ибрагимова, Ш. А. (2021). ИЗУЧЕНИЕ ФОСФОЛИПИДНОГО СОСТАВА МЕМБРАН МИТОХОНДРИЙ ГЕПАТОЦИТОВ ПРИ ГИПЕРГЛИКЕМИИ. *POLISH SCIENCE JOURNAL*, 238.

15. Мусурмонкулов, Ж. М., Кадиров, М. А., Расулова, В. Б., & Шадманов, К. К. АЛКОГОЛ ИНТОКСИКАЦИЯСИДА БОШ МИЯ ЖАРОХАТЛАРИНИНГ ОҒИРЛИК ДАРАЖАСИНИ ЭКСПЕРТ БАҲОЛАШ МЕЗОНЛАРИ. *FARMATSIYA VA FARMAKOLOGIYA FARMACIYA I FARMAKOLOGIYA PHARMASY & PHARMACOLOGY*, 68.

16. Webb, S. (2019). Incidental vocabulary learning. In S. Webb (Ed.), *The Routledge Handbook of Vocabulary Studies* (pp. 225-239). Routledge.

17. Laufer, B. (2018). The three T's of second language vocabulary learning: Input, instruction, involvement. *Language Teaching*, 51(2), 233-248.

18. Рахмонкулова, О. А. (2022). ЎЗБЕКИСТОН ИЖТИМОЙ-СИЁСИЙ. ИҚТИСОДИЙ ВА МАДАНИЙ СОҲА ИСЛОҲОТЛАРИДА ХОТИН-ҚИЗЛАРИНИНГ ЎРНИ (ЖАНУБИЙ ВИЛОЯТЛАР МИСОЛИДА, 1991–2020 ЙЙ.), 10(11).

19. Рахмонкулова, О. А. (2022). РАСШИРЕНИЕ УЧАСТИЯ ЖЕНЩИН В ПОЛИТИЧЕСКОЙ ЖИЗНИ–ВАЖНЫЙ ФАКТОР ПРОВОДИМЫХ РЕФОРМ В УЗБЕКИСТАНЕ. In *The 8th International scientific and practical conference “Modern directions of scientific research development”* (January 26-28, 2022) BoScience Publisher, Chicago, USA.

20. Abdullayev, S. (2022). English language acquisition through mobile platforms in economic education: Uzbek university perspectives. *Central Asian Business Education Journal*, 9(2), 123-140.

21. Chen, L., & Rodriguez, M. (2023). Cross-cultural mobile language learning: Comparative analysis of Asian and European implementations. *International Journal of Mobile Learning*, 15(4), 89-106.