

The Impact of Technology on Learning English Vocabulary

Fatemeh Erfani

1. Master of Arts in Teaching English as Foreign Language, Foreign languages
Faculty, Iran University of Science and Technology. Email: ferfani95@gmail.com

Article Info (277-292)

ABSTRACT

**Article
type:**
Research
Article

**Article
history:**

Received:
۲۵/۰۶/۲۰۲۴

Accepted:
۰۶/۰۹/۲۰۲۴

Keywords:
Technology
English
language
English
vocabulary
vocabulary
learning

Educational technology is a phenomenon that has been making its way into the education system for years. Nevertheless, over time and with the advancement of science and new technologies, the educational technology used in the education system has become more complex and advanced and, in other words, more widespread. In the past few years, we have witnessed a gradual and at the same time a quick development in the field of language learning through computer-assisted language learning (CALL) programs in various simple to difficult forms presented to users with varying levels of language competence. Any form of coming technology aims to lead to fresh prospects in pedagogy, and language learning and teaching are two of the areas that have seen major alterations due to immediate technological promotions. This article examines the impact of using educational technology on students' learning. The statistical population was 95 language learners of Tehran city in 2024. Using Morgan's formula, the number of samples was determined to be 78 (n=78) and they were selected for the research by simple random sampling method. Data were processed with SPSS version 22 software. The findings showed that the percentage of people who scored high (65.4%) is significantly higher than those who scored poorly (34.6%) (p.value=0.009). Therefore, the results show that educational technology has had an impact on students' vocabulary learning.

Citation: Erfani, Fatemeh (2024). The Impact of Technology on Learning English Vocabulary. Modern Literary Research, 3(2) ۲۷۷-

۲۹۲ Publisher: Association for the Promotion of Persian Language and Literature
© The Author (s).



DOI: [20.1001.1.28211413.1403.3.2.12.5](https://doi.org/10.28211413.1403.3.2.12.5)

Introduction

In the contemporary era, the rapid evolution of information technology has transformed educational paradigms, particularly in the domain of English Language Teaching (ELT). As global communication demands proficiency in English, non-English-speaking countries increasingly rely on innovative pedagogical tools to enhance language acquisition. Computer-Assisted Language Learning (CALL) has emerged as a middle-aged multidisciplinary field that offers significant advantages over traditional classroom settings, such as increased accessibility, flexibility, and a reduction in the “fear of mistakes” that often hinders learners. Vocabulary acquisition remains a fundamental pillar of language learning, fostering communicative confidence. This research aims to investigate the impact of educational technology on vocabulary learning among language learners in Tehran, exploring whether technological integration effectively enhances learning outcomes compared to traditional limitations.

Method

This study employed a descriptive-analytical methodology to examine the efficacy of technological tools in vocabulary learning. The target population consisted of 95 language learners in Tehran, from which a sample of 78 individuals ($n=78$) was selected using simple random sampling based on Morgan’s formula. Data collection was conducted via a standard researcher-oriented questionnaire consisting of 31 items on a five-point Likert scale, which demonstrated high reliability (Cronbach’s $\alpha = 0.88$) and content validity verified by experts. Data analysis was performed using SPSS version 22. Given the non-normal distribution of data confirmed by the Kolmogorov-Smirnov test ($p < 0.001$), a Binomial test was utilized to evaluate the statistical significance of the results.

Results

The findings provide empirical evidence for the positive role of technology in vocabulary development:

- **Quantitative Success:** 65.4% of the participants scored in the high-performance range regarding the positive impact of technology, while 34.6% scored in the poor range.
- **Statistical Significance:** The Binomial test confirmed that the percentage of learners experiencing high positive impact is significantly higher than those reporting poor impact ($p.value=0.009$).
- **Descriptive Insights:** Participants highlighted specific advantages: 89.8% believed technology reduces learning costs, and 92.3% noted that digital applications helped them acquire synonyms, antonyms, and varied contextual examples through visual and auditory media.
- **Challenges:** Conversely, 91.1% of participants identified significant barriers to e-learning, primarily related to internet outages and lack of quick access to materials, reflecting the infrastructural challenges present in developing educational contexts.

Conclusion

The study concludes that educational technology effectively shifts the teaching-learning process from teacher-centered to learner-centered, thereby increasing student participation and autonomy. By breaking the constraints of time and space, technology allows learners to personalize their study pace and access a vast repository of resources (podcasts, videos, e-books, apps) that facilitate vocabulary retention and overall language fluency. However, the study warns against “technocentrism”—the uncritical adoption of machines without pedagogical purpose. While technology provides a powerful platform for learning, successful implementation requires addressing structural and infrastructural challenges, such as internet stability and teacher competency. Future strategies in developing countries like Iran must focus on minimizing these obstacles to maximize the potential of e-learning initiatives in both academic and independent study settings.