

Effectiveness of Using Apple Classroom on Tertiary Students' English Language Learning Achievement and Learning Satisfaction at Chongqing Vocational College of Media

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Abstract

The objectives of this study were (1) to investigate the effectiveness of using Apple Classroom on tertiary students' English language learning achievement and (2) to examine their learning satisfaction toward technology-enhanced instruction at Chongqing Vocational College of Media. The study employed a mixed-method research design, combining quantitative data from pretests, posttests, and satisfaction questionnaires with qualitative data from classroom observations and semi-structured interviews. The participants consisted of 31 tertiary students selected through convenience sampling in a Bring Your Own Device (BYOD) learning environment. The results revealed that students' English vocabulary achievement significantly improved after the intervention, as evidenced by a substantial increase in posttest scores. Furthermore, students reported a high level of satisfaction with Apple Classroom, particularly noting its benefits in classroom management, focus, and interactive learning. The study concludes that Apple Classroom is an effective instructional tool for enhancing English language learning in vocational higher education settings.

Keywords: Apple Classroom, English Language Learning, Vocabulary Achievement, Learning Satisfaction, BYOD Environment

Introduction

The rapid expansion of mobile technology in higher education has fundamentally reshaped the way language instruction is designed and delivered. In China, vocational colleges have increasingly adopted technology-enhanced learning environments to address the growing demand for communicative English proficiency among tertiary students (Liu, 2022). Among these innovations, Apple Classroom—an iPad-based classroom management application—has emerged as a promising instructional tool capable of bridging the gap between technological infrastructure and pedagogical practice.

The integration of Apple Classroom within a Bring Your Own Device (BYOD) environment reflects a broader transformation in digital pedagogy, where mobile technologies mediate classroom interaction, provide real-time feedback, and support differentiated instruction. BYOD learning environments enable students to utilize personal devices as active cognitive tools rather than passive consumption platforms, aligning with constructivist and sociocultural perspectives that emphasize knowledge construction through interaction and scaffolding (Vygotsky, 1978; Mayer, 2009).

From a technology acceptance perspective, the effectiveness of Apple Classroom depends substantially on students' perceived usefulness and perceived ease of use, as conceptualized in the Technology Acceptance Model (Davis, 1989). When students perceive that mobile-based classroom management enhances efficiency, feedback immediacy, and collaborative participation, their behavioral intention to engage with the platform increases significantly (Zhang et al., 2022; Lee et al., 2021). Recent empirical studies further confirm that platform quality and system usability are key determinants of user trust and sustained engagement in digital learning environments (Han et al., 2023; Chen, 2024).

Furthermore, BYOD environments shift the locus of control toward learner autonomy, supporting self-regulated learning behaviors and intrinsic motivation (Deci & Ryan, 2000; Turner & Johnson, 2003). In structured digital ecosystems such as Apple Classroom, real-time monitoring, guided task completion, and instant feedback mechanisms may simultaneously enhance learning accountability and preserve student-centered flexibility—a balance that is particularly important in Chinese vocational education, where students often require both structure and encouragement to develop language confidence.

Despite growing implementation of BYOD in Chinese higher education, limited empirical research has examined how structured Apple Classroom management systems influence vocabulary achievement and learning satisfaction within vocational institutions. Previous studies have largely focused on general mobile learning outcomes (Kukulka-Hulme, 2020; Hwang & Fu, 2019) without addressing the specific instructional mechanisms through which Apple Classroom mediates language learning. Therefore, this study integrates constructivist learning theory, the Technology Acceptance Model, and perceived trust frameworks to examine the pedagogical effectiveness of Apple Classroom in a real-world BYOD setting at Chongqing Vocational College of Media.

This study is grounded in three interconnected theoretical perspectives: (1) Constructivist Learning Theory (Vygotsky, 1978), which holds that Apple Classroom facilitates collaborative interaction and enables teachers to scaffold learning within students' Zone of Proximal Development; (2) the Technology Acceptance Model (Davis, 1989), which posits that students' engagement is shaped by their perceptions of usefulness and ease of use; and (3) the Perceived Risk and Trust Framework (Featherman & Hajli, 2016; McKnight et al., 2002), which recognizes that institutional trust in digital platforms influences continued usage behavior and learner confidence. By linking these frameworks, the conceptual model of this study explains how Apple Classroom shapes learning outcomes in a structured BYOD context.

Research Methodology

Research Design: This study employed a mixed-method research design to provide a comprehensive understanding of both the measurable learning outcomes and the subjective learning experiences of participants. The quantitative strand examined changes in English vocabulary achievement using a pre-test and post-test approach, while the qualitative strand explored students' perceptions and satisfaction through classroom observations and semi-structured interviews. The combination of both approaches enhances the validity and depth of the findings by allowing quantitative results to be contextualized and interpreted through qualitative evidence (Creswell & Plano Clark, 2018).

Participants: The participants consisted of 31 tertiary students enrolled at Chongqing Vocational College of Media, China. Participants were selected through convenience sampling based on their enrollment in an English language course that incorporated Apple Classroom as the primary instructional management tool within a Bring Your Own Device (BYOD) environment. All participants owned compatible Apple devices and had prior exposure to basic iPad functions. The study was conducted during one academic semester in the 2024–2025 academic year. Informed consent was obtained from all participants prior to the study.

Instruments: Three research instruments were employed to collect data. First, vocabulary achievement tests (pre-test and post-test) were developed based on the course syllabus to measure students' English vocabulary knowledge before and after the Apple Classroom intervention. The tests included multiple-choice, fill-in-the-blank, and contextual usage items, assessed by content validity review from two experienced language instructors. Second, a learning satisfaction questionnaire using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) was administered to evaluate students' perceptions of Apple Classroom across dimensions including usability, engagement, instructional clarity, and overall

satisfaction. Third, qualitative tools including structured classroom observation protocols and semi-structured interview guides were used to capture behavioral and attitudinal data during and after instruction.

Procedure: The instructional intervention spanned eight weeks of instruction using Apple Classroom-integrated lessons. Each lesson followed a consistent structure: teachers initiated sessions through Apple Classroom by distributing digital materials, monitoring student screens in real time, and providing instant feedback during vocabulary practice tasks. Students engaged in individual and collaborative activities facilitated through the platform's guided access and content-sharing features. Pre-tests were administered at the beginning of the intervention and post-tests at the conclusion. Satisfaction questionnaires were distributed immediately following the post-test. Classroom observations were conducted during weeks two, five, and eight, and interviews were conducted with a purposively selected sub-sample of ten students after the intervention.

Data Analysis: Quantitative data were analyzed using descriptive statistics including mean scores and standard deviation, as well as paired-sample t-tests to determine whether the difference between pre-test and post-test scores was statistically significant. Learning satisfaction scores were analyzed using mean and frequency distributions to identify overall satisfaction levels and item-level patterns. Qualitative data from classroom observations and interviews were analyzed through thematic analysis, in which recurring patterns related to engagement, usability, and learning experience were identified, coded, and interpreted in relation to the quantitative findings.

Result

The findings of the research are summarized as follows:

1) Significant Achievement Improvement: The students' English vocabulary achievement showed significant growth. The posttest mean scores were substantially higher than the pretest scores, confirming that the use of Apple Classroom effectively supported vocabulary acquisition.

2) High Learning Satisfaction: Students reported a high level of satisfaction with the technology-enhanced instruction. Qualitative themes from interviews indicated that students felt Apple Classroom helped them stay focused on tasks and made the classroom atmosphere more interactive and modern.

3) Engagement and Focus: Classroom observations revealed that students were more likely to stay on task and follow teacher instructions when using Apple Classroom features, such as screen sharing and app guidance.

Discussion and conclusions

The findings of this study provide robust empirical evidence that Apple Classroom, when implemented within a BYOD environment, significantly enhances English vocabulary achievement and fosters high levels of learning satisfaction among tertiary students at Chongqing Vocational College of Media. The significant improvement in post-test vocabulary scores confirms that structured digital classroom management can serve as an effective instructional mechanism for supporting language acquisition in vocational higher education settings.

These outcomes align coherently with the Technology Acceptance Model (Davis, 1989), which holds that perceived usefulness directly determines user engagement. In the present study, students reported high perceived usefulness of Apple Classroom features—particularly real-time screen monitoring, guided access, and instant content distribution—which encouraged sustained attention and task completion. This is consistent with recent

findings demonstrating that digital platform quality and usability are key predictors of learner engagement and satisfaction in higher education contexts (Han et al., 2023; Zhang et al., 2022).

From a constructivist perspective, the instructional design of Apple Classroom enables teachers to function as active scaffolders rather than passive transmitters of knowledge. By monitoring student progress in real time and adjusting instruction dynamically, teachers were able to provide differentiated feedback within students' Zone of Proximal Development (Vygotsky, 1978). This pedagogical approach reflects what contemporary research identifies as a shift from content-centered to learner-centered instruction, which has been consistently associated with improved vocabulary retention and communicative competence in EFL settings (Lee et al., 2021; Chen, 2024).

The role of perceived trust and institutional credibility in sustaining platform adoption is also supported by the present findings. Students' positive perceptions of Apple Classroom suggest that the structured oversight mechanisms embedded in the platform effectively mitigated concerns about digital distraction and off-task behavior—factors commonly cited as barriers to BYOD implementation in Chinese higher education (Featherman & Hajli, 2016; Huang, 2022). When students trust that the digital environment is organized, transparent, and purposefully designed, their willingness to engage increases, as does their intrinsic motivation to perform (Deci & Ryan, 2000).

It is important to note that the effectiveness of Apple Classroom does not derive from technology alone. Rather, the present study demonstrates that meaningful learning outcomes emerge from the interaction of four interdependent conditions: pedagogically structured lesson design that integrates clear task objectives; high system usability that minimizes technical friction; institutional trust signals that encourage confident platform adoption; and student-centered active engagement facilitated through collaborative and feedback-driven tasks. The absence of any single condition would likely undermine the effectiveness of the others.

In conclusion, this study extends prior digital learning research by demonstrating that structured mobile classroom management systems can simultaneously enhance cognitive engagement, vocabulary performance, and perceived instructional quality within vocational higher education. The findings carry significant implications for educators, curriculum designers, and institutional administrators seeking evidence-based approaches to technology integration in EFL contexts. Future research should explore the long-term retention of vocabulary gains, the application of Apple Classroom across other language skill domains, and its comparative effectiveness relative to alternative classroom management platforms such as Google Classroom.

Suggestion

1. Recommendations for Educational Practice and Administration:

Continuous Teacher Training: It is highly recommended that vocational colleges provide regular professional development for teachers to master all features of Apple Classroom. Instructors should be trained not only in technical operation but also in pedagogical strategies for using digital monitoring to provide constructive, real-time feedback.

Infrastructure Optimization: To ensure the smooth implementation of Apple Classroom, institutions must prioritize the stability and speed of the campus Wi-Fi network. Stable connectivity is a prerequisite for real-time screen monitoring and content sharing; any technical lag could disrupt the learning flow and decrease student satisfaction.

Balancing Control and Autonomy: Teachers are encouraged to use the "Lock" features selectively. While these tools are excellent for maintaining focus during vocabulary drills, students should also be given periods of digital autonomy to explore English resources independently, thereby fostering self-directed learning habits.

Enhancing Peer Collaboration: Educators should leverage the file-sharing capabilities of Apple Classroom to promote more peer-to-peer activities. Sharing student-created vocabulary cards or group projects can enhance the social dimension of language learning.

2. Recommendations for Future Research:

Longitudinal Skill Tracking: Future studies should investigate the long-term retention of vocabulary skills acquired through Apple Classroom by conducting follow-up tests several months after the intervention.

Impact on Other Language Skills: While this research focused on vocabulary achievement, future research should explore how Apple Classroom can support the development of listening, speaking, and writing skills in English.

Large-Scale and Comparative Studies: It would be beneficial to conduct a comparative study between Apple Classroom and other classroom management software (such as Google Classroom or Microsoft Teams) to identify which tools offer the greatest benefit for vocational students in China.

Investigating the "Digital Divide": Future research could explore how different types of student devices (varying brands and specifications) impact the overall efficiency and equity of learning in a BYOD classroom environment

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