

An Investigation on the Effectiveness of Mobile-Assisted English Learning among College Students in China

Yu Yaqing, Miao Wenjing

Jiangsu Normal University Kewen College, Xuzhou, Jiangsu, 221132, China

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Abstract: This study investigates the effectiveness of online platforms and mobile applications for college students' English language learning. It examines how these tools are used, their impact on learning outcomes, and associated issues. Findings show that internet applications significantly enhance learning interest, broaden resources, and improve efficiency, but also highlight problems like improper use. The study offers key insights and recommendations for better integration of these tools in English language learning.

1. Introduction

Mobile-assisted English learning in this study refers to online platforms and mobile applications. Nowadays those internet-based learning tools are increasingly used in education, providing resources, personalized experiences, and interactive feedback. These features are especially beneficial for English learning, given students' academic workloads and time constraints. Utilizing these mobile-assisted learning tools aligns with modern educational needs and supports students' academic and professional growth.

Assessing usage patterns, impact on language skills, and both benefits and limitations, aiming to improve English online learning tools and integrate them with traditional methods to enhance teaching effectiveness and foster educational innovation, this study explores how college students use internet-based applications for English learning, provides practical advice for students and teachers on using internet applications for English learning, helping students manage their learning and improve results. It offers teachers ideas for innovative methods by integrating apps based on student needs, thus enhancing teaching quality. Additionally, it guides developers in understanding app strengths and weaknesses to create better tools that address students' needs.

2. Literature Review

This paper reviews domestic research on internet platforms and applications for college English learning. LE, Wenxin et al. (2023) proposed using visual strategies like images and videos to aid understanding[1]. MU, Xia (2023) explored innovative teaching methods in higher vocational settings under "Internet+" to improve speaking skills[2]. LI, Mengru and TAO, Su (2022) assessed mobile learning apps, noting their effectiveness and existing issues[3]. XIE, Jingjing (2019)

investigated social media's role in collaborative English learning[4]. ZHANG, Cuiying (2023) emphasized the benefits of mobile apps when actively used[5], while Lei Shaonan (2019) highlighted diverse motivations behind students' use of these apps[6].

Petra Polakova and Blanka Klimova (2023) explored using DeepL translation software to aid English language learning, introducing new methodologies and perspectives to the field[7]. At the same time, Nagaletchimee (2023) examined English learning through chatbot with self-determination theory, offering fresh ideas for personalized education[8]. Gao (2021) highlighted that Internet resources positively affect Chinese college students' English learning by providing abundant resources and interactive platforms that enhance listening, speaking, reading, and writing skills[9]. Marlowe (2018) further noted that diverse learning styles in online applications contribute to a more comprehensive acquisition of English. Marlowe suggests that mobile learning apps increase student engagement and improve outcomes through personalized learning experiences and timely feedback[10].

3. Research Method

This study applies quantitative methods. The quantitative data is gathered through a survey of college students on their use of mobile-assisted English learning. The survey examines College students' preference, purposes, frequency and satisfaction on using English online platforms or applications to associate with their study. Data analysis through statistical methods reveals the impact and mechanisms of these applications on learners. This approach allows for a thorough investigation of how online platforms and mobile apps aid college students' English learning and provides valuable insights for instructional practices.

The participants of the study are college students in Suzhou, Jiangsu, China. A sample survey and interview was conducted, and after excluding incomplete and invalid responses, 113 valid questionnaires were collected. Participant information is detailed in table 1.

Table 1: Basic information of the participants

Considerations	Classifications	Quantity (persons)	Percentage (%)
Genders	Male	55	48.67
	Female	58	51.33
Grades	Freshman	29	25.66
	Sophomore	24	21.24
	Junior	26	23.01
	Senior	34	30.09

4. Data collection and Analysis

Data collected from the survey is further discussed in this chapter in the form of charts to answer the research question: 1). Exploring internet applications for English learning: preferences and purposes among college students. 2). To what extent has the internet applications helped to improve English performance. 3). Discover problems that college students confront while using online tools for English learning.

4.1 Preferences and Purposes

To answer the research question above, a survey as conducted to investigate the categories of English learning applications that college students use. The table 2 reveals the result and indicates the

multiple students' preference on online learning platforms to fulfill their needs on their different learning goals based on the interview.

Table 2: Students' preference and purpose on using online learning platforms and apps

Major category	Preference	Online learning platforms
Applications for Improving English Test Score:	Vocabulary	Multiple online dictionaries for meaning and memorizing
	English Teaching and Learning	Mooc, Tencent meeting
	Listening	Daily English Listening and VOA Slow
	Reading	China Daily and BBC News
Applications to Improve English Communication:	Speaking	English Fun Dubbing, Fluent Speaking, Youdao Speaking Master
Others	Self-learning	Tiktok
		Bilibili and YouTube

Online platforms or application to improving test score that students use includes online dictionaries for check and remember the vocabulary: Daily English Listening and VOA for their listening training, China Daily and Foreign Research Service Reading for practice reading on daily basis. Applications and online platforms that college students use for improving English skills for daily communication include: English Fun Dubbing which allows users practice oral English by dubbing audio or video content, Fluent Speaking and Youdao Speaking Master help improve students' English fluency and pronunciation through interactive exercises and feedback. The survey also shows 66.33% of students use short videos like TikTok for learning, and 60.2% watch long videos on platforms such as Bilibili and YouTube for educational entertainment.

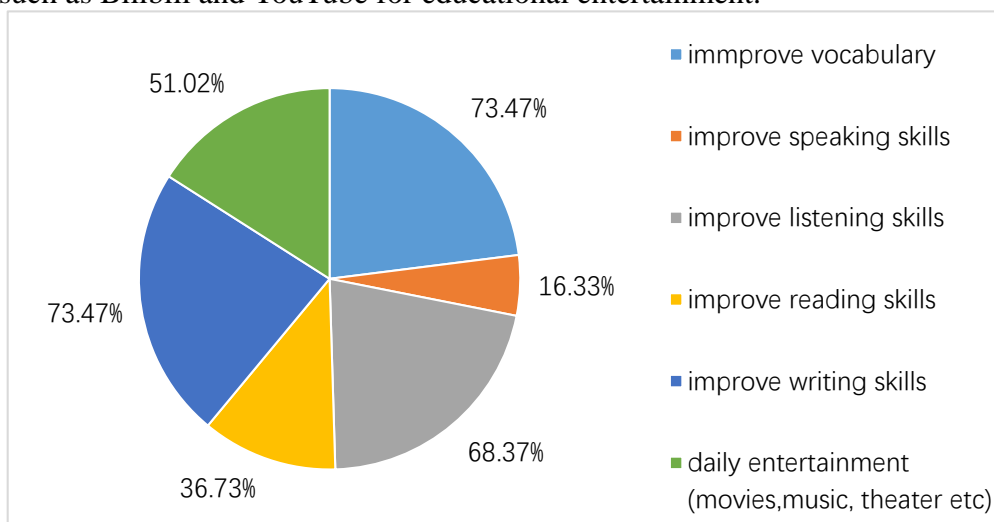


Figure 1: Preference of college students choosing internet applications for English learning

Figure 1 reveals the main preference that college students using internet applications: 73.47% of the participants focus on improving vocabulary and writing, while 68.37% of them aim to enhance listening skills. These preferences align with key components of English proficiency exams. Only 16.33% of the samples prioritize speaking skills, possibly due to a perceived lower necessity for speaking practice. The study highlights that students primarily use digital tools to boost overall English performance, reflecting a broader trend of integrating technology into language learning.

4.2 The Impact of Internet Applications on Students' Performance

To understand the impact of Internet applications on college students' English performance, this study firstly examined how frequently these students use such applications and online platforms and then investigate to what extent that students think the learning platforms and apps have helped to improve the students' test score. The following chart suggests that 46.94% of college students use Internet applications often, 30.61% use them occasionally, 14.29% use them daily, and 8.16% use them rarely. These findings suggest that only a small percentage of college students are committed to daily study habits, while most use Internet applications for English learning with less consistency, as shown in Figure 2.

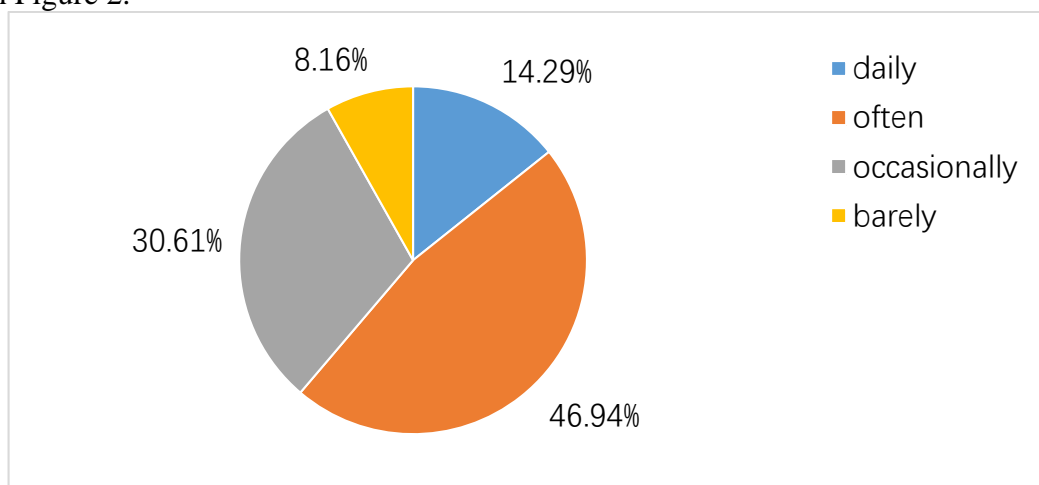


Figure 2: Frequency of college students' use of online platform and apps for English learning

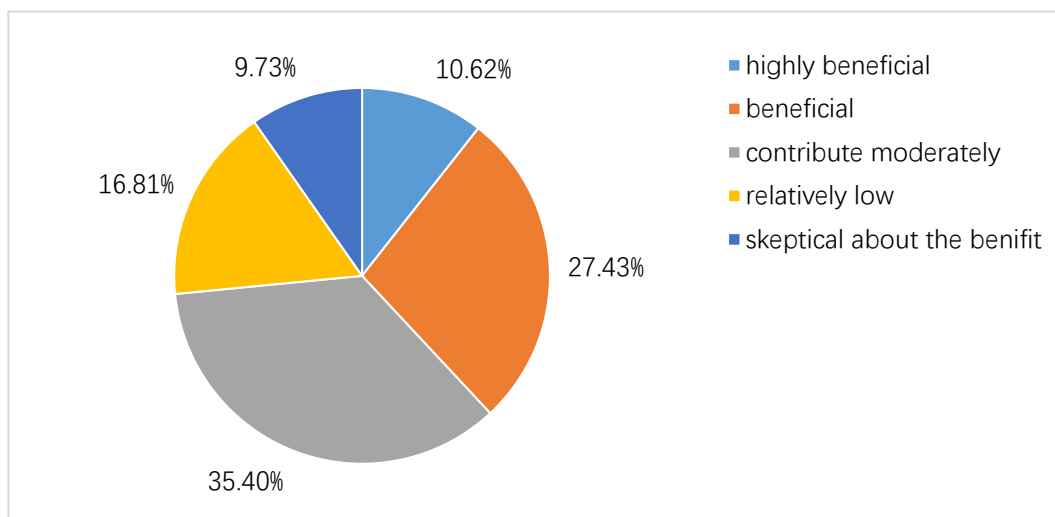


Figure 3: To what extent that learning platforms and apps have helped to improve students' performance on English test

There is a wide range of opinions on the effectiveness of Internet applications, particularly those for learning English, in improving college students' grades. Here's a breakdown of the responses (Figure 3):

Moderate Contribution (35.40%): These students feel that Internet applications contribute moderately to improving English grades. They acknowledge some benefits but believe there is room for improvement or other influencing factors.

Beneficial (27.43%): This group considers Internet applications beneficial, noting that they significantly help improve English grades. They likely see these tools as valuable based on their own positive experiences.

Relatively Low (16.81%): Respondents in this category view the assistance from Internet applications as relatively low. They may recognize some benefits but find them insufficient to significantly impact their English grades.

Highly Beneficial (10.62%): These students strongly believe in the effectiveness of Internet applications, seeing them as extremely beneficial for English learning. They may have experienced substantial improvements themselves or observed significant gains in others.

Skeptical (9.73%): This group is skeptical about the effectiveness of Internet applications for improving English grades. They may feel that traditional methods or other factors are more influential or doubt the value of these applications in language learning.

These diverse perspectives underscore the complexity of assessing the impact of internet applications on English learning. Factors like individual learning styles, the quality of the applications, and the degree of engagement can all affect their effectiveness. Moreover, while internet applications can undoubtedly enhance language skills, they may not be the sole determinant of English grades; classroom instruction, practice opportunities, and motivation also play vital roles.

4.3 Problems of the learning Platforms and Apps

This part of the study aims at discovering the problems that College Students confront while using the online learning platforms and apps to assist their English learning.

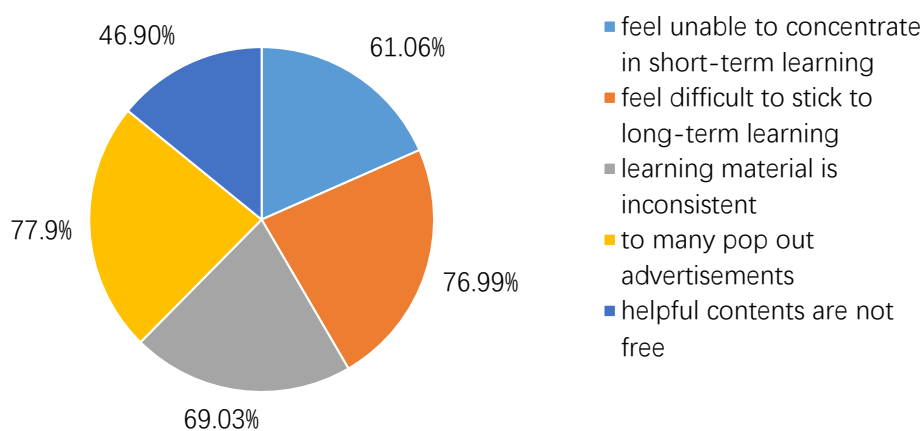


Figure 4: Problems students encounter in using online platforms and apps for English learning

The data (figure 4) reveals significant challenges college students face while apply internet learning tools and according to the interview after the survey the four major reason can be conclude in the following:

Difficulty in Long-Term Learning (76.99%): Many students struggle with maintaining long-term learning commitments, suggesting issues with consistency, self-regulation and motivation. The potential distractions exist such as interference from family members, noisy environment, low quality of internet, and restricted physical space.

Learning material is inconsistent (69.03%): Students often find their learning experiences inconsistent, indicating a need for improvements in learning materials and personalized approaches.

Presence of Advertisements (77.88%): A significant number of students report that advertisements disrupt their focus and engagement with learning materials.

Key contents are not free (46.9%): Almost half of the students note they give up half-way while

learning because the essential resources need to be paid and they have no willingness to spend money on them.

To address these challenges, enhancing long-term learning by integrating progress tracking and gamification, improving learning quality with standardized methods and adaptive technologies, and boosting concentration with distraction-free environments and focus tools are all measurements with necessity. Additionally, minimize disruptive ads by offering ad-free options and make paid features more accessible through affordable pricing or free resources can significantly improve the learning experience for college students.

5. Conclusion

The analysis reveals that college students primarily use online English learning platforms and apps for improving test score and speaking skills, with a strong preference for enlarge their vocabulary capacity and improve their listening and writing skills to fulfill the requirements of English tests. Internet leaning platforms and applications for English are generally seen as beneficial but there is still one fourth of the students consider mobile assisted learning are less helpful. Issues of the online platforms and mobile apps for English leaning such as paid features, cluttered interfaces, disruptive ads, and privacy concerns hinder their effectiveness. Despite these benefits, significant improvements are needed to address these drawbacks to better support students' learning experiences:

Richness of Learning Resources: A diverse range of materials enhances the app's effectiveness by providing various topics and formats, improving the learning experience.

Quality of Learning Content: High-quality content is crucial for engagement, comprehension, and retention, whereas poor content can drive users away.

Match Tests to Different Levels: Customizing tests to users' proficiency levels ensures appropriate challenges and motivation by addressing individual learning needs.

Ease of Use: A streamlined, intuitive interface prevents user frustration and encourages sustained use, as opposed to complex layouts and excessive pop-ups.

Personalized Recommendation: Utilizing machine learning algorithms to analyze user data and provide tailored recommendations for learning materials and activities can enhance the efficiency and effectiveness of the learning process. This personalization helps cater to individual learning preferences and goals.

Protect Privacy: Implementing robust data protection measures, such as encryption, secure authentication, and adherence to privacy regulations, ensures the confidentiality and integrity of users' personal information and learning data.

Improve user engagement: Facilitating interactions among users through features like discussion forums, virtual study groups, and peer-to-peer feedback mechanisms can create a sense of community and encourage collaborative learning.

Social Influence: Peer recommendations and teacher endorsements play a significant role in app selection, with positive word-of-mouth and app popularity within social circles impacting decisions.

By addressing these factors and focusing on user experience, developers can create English learning apps that effectively support college students' language learning journeys and contribute to their academic success.

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