EFL Undergraduate Learners' Experience on the Use of Mobile Applications for Independent Language Learning

Yue Zhang *

Liaoning Communication University, Shenyang, 110000, China

* Corresponding Author Email: zoey1025@126.com

Abstract. This study analyzed Chinese university EFL learners' experiences with mobile apps for self-directed English learning. Surveying 199 English majors and interviewing 8, it found that students utilize apps for skill enhancement and exam prep, perceiving them as useful, albeit with varying degrees of effectiveness. Insights suggest fostering mobile learning initiatives and reforming university English pedagogy, enabling students to leverage personal experiences for learning gains and teachers to tailor teaching based on student feedback.

Keywords: Mobile Application, efl, teaching methods, chinese universities.

1. Introduction

As social and economic progress accelerates, citizens increasingly recognize the significance of education, and globalization has universally acknowledged the importance of English. Recent IT advancements have enabled distance learning for English, with 5G revolutionizing teaching and learning. The accessibility of mobile devices and 5G platforms will usher in a new era of university English education. The rapid tech advancements have expanded knowledge and altered learning methods. Mobile learning, a novel approach, has gained prominence, with mobile device ownership fostering informal language learning opportunities.

2. Theoretical Background and the Application of MALL

2.1. Definition and Application of MALL

Mobile Assisted Language Learning (MALL), a burgeoning sub-discipline within Learning, has emerged as a pivotal approach to enhancing language acquisition through mobile devices. Rooted in the 1980s with Twarog's pioneering use of telephones for remote education, MALL transcends traditional classroom boundaries, harnessing the versatility of mobile technology to capitalize on learning opportunities. Research underscores the significance of technology-mediated language learning beyond the classroom in fostering linguistic competencies (Fathali & Okada, 2016; Pearson, 2004; Zhang, 2007). Kern (2006) emphasizes that MALL enables learners to engage in language study across diverse environments, leveraging mobile technology. Thornton and Houser (2005) specifically demonstrate the effectiveness of mobile phones in English vocabulary instruction, revealing that mobile learners perceive more information and prefer this modality over paper- and computer-based methods. Consequently, understanding students' perceptions and acceptance of MALL is paramount to its successful integration into educational practices, as it increasingly shapes the landscape of teaching and learning, offering a myriad of educational avenues.

2.2. Theoretical Background and Framework to Research

The technology acceptance model (TAM) and its updated version, TAM 2 (see Figure 1), focus specifically on the role of the learner and the importance of understanding how the learner's perceptions and behavioral intentions lead to the actual use of technology. The first requirement for the adoption of technology is perceived usefulness (PU). According to Davis (1989), PU refers to the extent to which a person believes that the use of a system will improve their effectiveness; that is, whether someone perceives the technology to be useful for what they want to do. The second

requirement is perceived ease of use (PEOU). This refers to the extent to which a person finds using a particular system effortless, meaning that, if the technology or system is easy to use, then the obstacles are overcome, and if it is not, then the user will not be likely to adopt it.

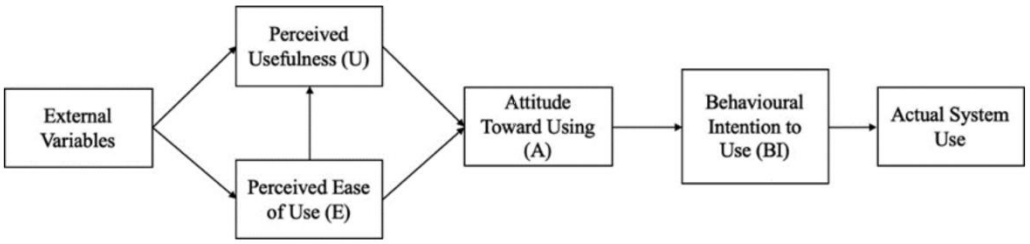

Figure 1. Technology acceptance model

This article applies TAM 2 to examine EFL undergrads' intention to use MALL and its impact on autonomous mobile app use. TAM 2 adds subjective norms to the original model, focusing on social influence. However, learners' autonomy and the learning environment are paramount, as Colpaert (2004) notes. Methodology of Research

3. The Establishment of Research Design

This study uses mixed methods to explore EFL undergrads' mobile app experiences. It combines quantitative online survey data and qualitative interviews. The survey gathers basic usage info, while interviews provide in-depth experiences. The sequential design leverages both methods' strengths for a comprehensive understanding. Data collection.

This article aimed to investigate Chinese undergraduate EFL learners' experiences of learning English independently using mobile applications, with the aim of answering the following questions:

(1) To what extent and for what purposes do Chinese EFL undergraduate learners use MALL for independent language learning?

(2) How do Chinese EFL undergraduate learners perceive the usefulness of MALL for independent language learning?

(3) How do Chinese EFL undergraduate learners perceive MALL integration in the language classroom language instruction?

This study examined Chinese EFL undergraduates' experiences, perceptions, and motivations towards mobile learning apps, emphasizing the perceived usefulness of Mobile-Assisted Language Learning (MALL). Eight English majors from a balanced university in Liaoning, China, were interviewed. They had prior mobile app learning experience. The study aimed to delve into their detailed experiences, views, and motivations, summarized in Table 1 using pseudonyms.

Table 1. Background of the eight interviewees

Name	Gender	Year of study	English Level	Time of use apps
Sarah	Female	3 rd year	CET-4	3 years
Jason	Male	4 th year	TEM-4	1 year
Dora	Female	3 rd year	IELTS 6.5	4 years
Norah	Female	4 th year	IELTS 6.5	4 years
Lori	Female	2 nd year	TEM-8	2 years
Carrie	Female	1 st year	CET-4	2 years
Cathie	Female	3 rd year	TEM-4	3 years
Will	Male	2 nd year	CET-6	2 years

This article summarizes the experiences of 207 Chinese learners who studied English independently via mobile apps, comprising 199 survey respondents and 8 interviewees. Both quantitative and qualitative data were analyzed, with 192 validated survey responses detailing

learners' usage and perceptions of mobile apps (MA). The survey results offer insights into percentages, averages, and variations (see Appendix 1). Analysis of experimental results.

In the context of Chinese university requirements as a specific external motivation, learners' engagement with mobile apps (MA) for learning was examined, focusing on their motivation, emotions, and perceptions of resource usefulness and convenience. A survey revealed that 178 of 192 participants had utilized MA for language learning, primarily driven by the desire to enhance English proficiency (34.8%), highlighting the significance of such tools in fulfilling academic objectives.

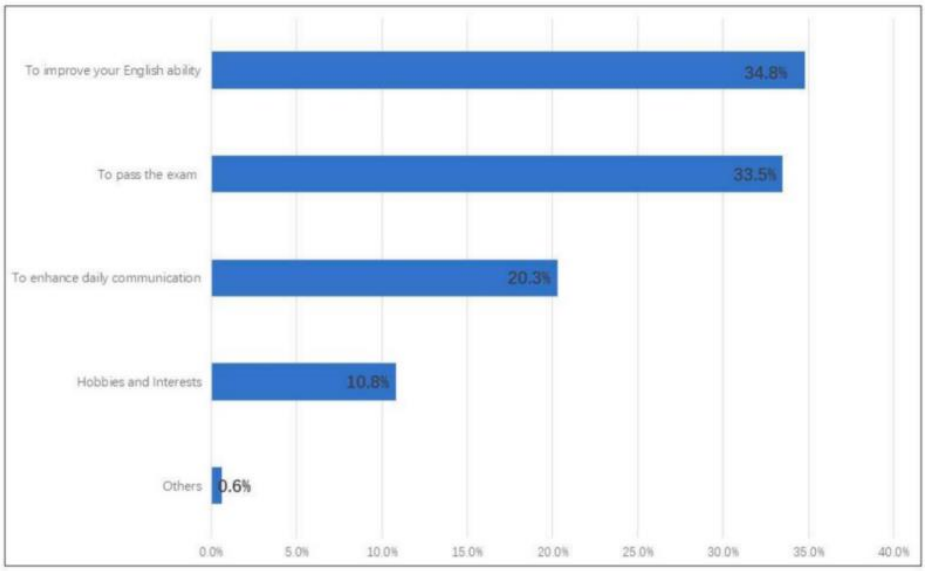

Figure 2. The Purpose of independent English study using mobile apps

This reason was followed closely by the option ‘to pass an exam’ (33.5%), while 20.3% selected ‘enhance daily communication’ and 10.8% cited personal interests. This indicates that the participants in this survey use mobile apps to learn English for the purpose of improving their personal English abilities.

Participants were also asked to choose which language skill they would most like to improve through the use of MA. According to the results of the questionnaire, vocabulary was the most important area that learners wanted to improve (28.7%). Listening was the second most important area that learners wanted to improve (22.9%), followed by speaking ability (16.7%) and reading skills (15.1%), while grammar ability (12.5%) and writing ability (4.2%) were the last two options (See Figure 3).

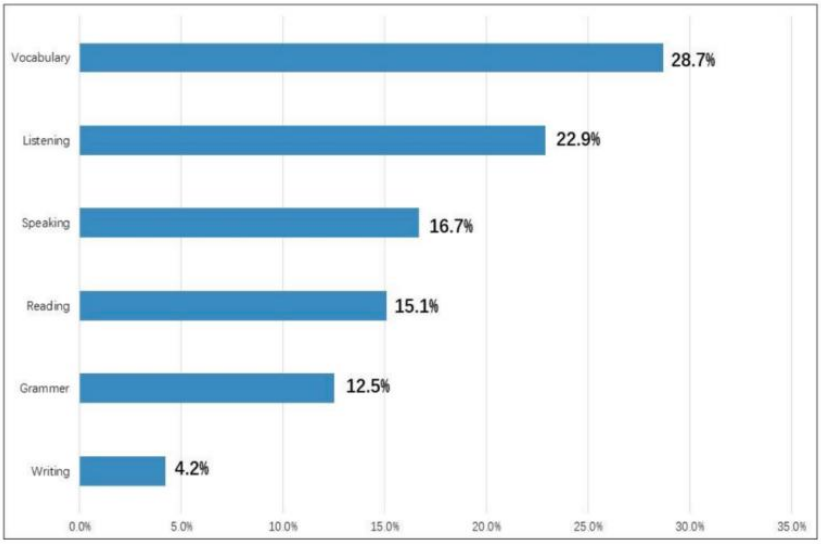

Figure 3. The most important language skill learners want to improve using MA.

This shows that improving vocabulary is the skill that survey participants most want to improve using MA. In contrast, very few learners wanted to improve their writing skills through mobile apps.

However, in the interviews, six interviewees mentioned passing various types of English level exams as their main purpose for using mobile apps. For example, the interviewee named Carrie explained that:

When I started using the Baicizhan Word app at university, I thought I didn't have enough vocabulary, but now I have more goals, for example…and then the TED app, it's training my listening, because in the Professional Level 4 exam, the listening requirements are quite high, ….

Another interviewee, Joli, who used a writing mobile app, said:

The teacher recommended the Critique.com app to us in order to get a higher mark. The app allows us to keep revising and can constantly update our marks so that we can get a good grade in the exam.

Four other interviewees, Sarah, Dora, Norah, and Will, all made it explicitly clear that they are using MA independently to take some English language exams. Of the remaining two interviewees, Jason's purpose was to improve his interest in learning English, while Lori's was to correct her pronunciation of words. However, Jason also expressed that he had plans to take the IELTS exam later.

In summary, a combination of quantitative and qualitative data demonstrates that the EFL undergraduate learners in this study used the mobile app independently to learn English with the purpose of improving their personal ability and pass the exam. In addition, learning English vocabulary is the most important skill area for learners.

In the questionnaire, the study used a Likert scale to collect participants' attitudes towards seven typical behavioral characteristics of using MA to learn English independently. It asked participants to rate whether their behaviour matched statements (see Table 2) related to using MA to learn English independently.

Table 2. Descriptive statistics on the effectiveness of independent use of mobile apps for learning English

1=Strongly disagree 5=Strongly agree	Mean	St. Deviation	Skewness
1.Mobile apps have enabled me to undertake independent, personalized language learning outside the classroom.	3.87	0.793	-1.392
2. Using mobile apps has made me more motivated to learn English.	3.87	0.908	-0.971
3. Using mobile apps to learn English is a convenient and flexible way to learn English, enabling me to learn English at any time and from anywhere.	3.96	0.943	-1.164
4. I feel more self-fulfilled when I use mobile applications to learn English independently.	3.73	0.982	-0.692
5. When I use the mobile applications, I can combine them with my classroom learning content to learn English more effectively.	3.78	0.827	-0.621
6. When I use mobile applications for independent English learning, I can be more effective.	3.8	0.835	-0.498
7. I can accommodate my English learning needs when I use the mobile applications for independent study.	3.87	0.845	-0.663

Table 2 presents the utility assessment of mobile apps (MA) for independent English learning, yielding an average score of 3.84 across seven items, all exceeding 3. This positive consensus underscores the participants' general agreement on the effectiveness of MA for autonomous English language acquisition. The mean scores reflect the degree of consensus among respondents regarding each statement's validity, with higher values (on a 1-5 scale) signifying greater perceived efficacy in leveraging MA for self-directed English learning. The standard deviation quantifies the dispersion of

participants' opinions around this mean, indicating whether views are tightly clustered or widely divergent.

Table 2 shows most statements on MA usage had a mean near 4, with Statement 3 topping the list. It shows participants agreed MA offer convenience and flexibility for English learning. Standard deviations were similar, with the lowest for 'personalised learning outside classroom', indicating consensus. However, 'self-fulfillment from MA use' had the highest SD, reflecting varied opinions. Overall, data was consistent, with Statements 1 and 3 highly negatively skewed, suggesting widespread agreement on MA's benefits for independent learning.

According to the results of the questionnaire, 89 participants (46.6%) preferred to use MA in class to enable more independent learning and 65 participants (34.1%) preferred to use them in class to be able to check their classroom knowledge. The remaining 38 participants (19.37%) preferred in-class and out-of-class use (Figure 4).

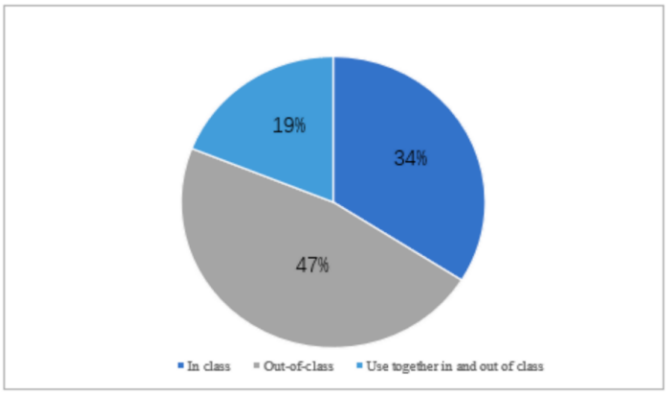

Figure 4. Integration of apps in the classroom

Based on the data this suggests that the majority of questionnaire participants preferred independent use compared to in-class use and integrated in-class and out-of-class use.

In summary, the study reveals that EFL undergraduate learners utilize mobile apps (MA) primarily to enhance personal English proficiency and exam performance, particularly in vocabulary. Positive attitudes and perceptions towards MA's efficacy in English learning were evident. Furthermore, learners held favorable views and provided insights for integrating MA into language classrooms. These findings significantly contribute to the development of Mobile-Assisted Language Learning (MALL) and inform the use of MA in language teaching and learning practices.

4. Summary of Key Results

This comprehensive study, encompassing 199 questionnaire respondents and eight interviews, delved into EFL undergraduates' experiences with mobile apps for English language learning. Key findings underscored apps' primary use for enhancing personal proficiency and exam success, particularly focusing on vocabulary improvement. Both data sources concurred on users' positive perceptions of apps' user-friendliness and individualized learning support. While favoring independent learning, participants advocated for integrating mobile apps into classroom instruction, highlighting the importance of professional guidance and teacher training in mobile-assisted language learning (MALL) integration. Considering mobile technology's accessibility, integrating out-of-class app usage with classroom activities is paramount. The study affirms the potential of independent mobile app use for EFL learners, reinforcing TAM and TAM 2 models, and underscores the need for teacher support in fostering technology-integrated language classrooms within the broader MALL context.

4.1. Limitations of this Study

This study, despite its insights, is constrained by several limitations. Firstly, its exclusive focus on undergraduate learners at Liaoning University, a prestigious tier-1 institution, limits the

generalization of findings. The unique teaching resources and high-performing student pool may not mirror those of other universities, particularly those in lower tiers or regions, thus compromising the reliability of the research across diverse educational contexts. Secondly, while adopting a mixed-method approach, statistical rigor falls short. The quantitative analysis lacks depth, relying primarily on basic graphic and descriptive statistics, while the interpretation is heavily influenced by researchers' subjective perceptions. The absence of rigorous statistical tests, such as significance analysis, undermines the validity of conclusions drawn from the data.

4.2. Recommendation for Future Research

Future research should expand its scope by involving a broader range of learners across regions, age groups, and learning contexts (e.g., English for job seeking). A focus on Chinese EFL learners' attitudes and perceptions towards language learning, utilizing an innovative theoretical lens, is crucial to unravel their independent learning habits. Given the study's geographical context in a northern China provincial capital, further exploration of advanced technology access among students is warranted. To deepen understanding, statistical analyses like t-tests and regression should be employed to identify key factors influencing mobile app adoption for English learning and MALL. Such studies should also encompass diverse populations and teachers' experiences, examining the role of personalized, contextualized, authentic, spontaneous, and informal learning tools in mobile-based pedagogy. Additionally, pre-post app usage t-tests will validate any significant changes, enhancing educators' preparation for students' future careers.

References

[1] Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. Technology in Society, 65, 101565.

[2] Lai, C., & Zheng, D. (2018). Self-directed use of mobile devices for language learning beyond the classroom. ReCALL, 30(3), 299–318. doi:10.1017/S0958344017000258

[3] Colpaert, J. (2004). From courseware to coursewear? Computer Assisted Language Learning, 17(3-4), 261-266.

[4] Kukulska-Hulme, A., & Traxler, J. (2007). Mobile teaching and learning. In Mobile learning.

[5] Kern, S., Dettborn, T., Eckhaus, R., Ji, Y., Erfurth, C., & Rossak, W. (2006). A generic agent-based peer-to-peer infrastructure for social-mobile applications. Mobile Informationssysteme-Potentiale, Hindernisse, Einsatz. 1. Fachtagung Mobilitätund Mobile Informationssysteme (MMS).

[6] Zhang, J. (2007). A cultural look at information and communication technologies in Eastern education. Educational Technology Research and Development, 55(3), 301-314.

[7] Tashakkori, A., & Teddie, C. (2003). Mixed methods research, alternative approaches and unresolved issues in conceptualization and design of mixed methods. Handbool of mixed mehods in osical and behavioural research. Thousand Oaks, CA: Sage.

[8] Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. Field methods, 18(1), 3-20.

[9] Thornton, P., & Houser, C. (2005). Using mobile phones in English education in Japan. Journal of computer assisted learning, 21(3), 217-228.

[10] Fathali, S., & Okada, T. (2016). On the importance of out-of-class language learning environments: A case of a web-based e-portfolio system enhancing reading proficiency. International Journal on Studies in English Language and Literature, 4(8), 77-85.