Survey on the Influence Factors of Mobile-Assisted English Learning

Fu Yanyu[1], Tang Xin[2]

[1]College of New Materials and Chemical Engineering, Beijing Institute of Petrochemical Technology, Beijing, 102617, China
[2]Zhiyuan School of Liberal Arts, Beijing Institute of Petrochemical Technology, Beijing, 102617, China

Abstract: At present, there are still many problems that need to be solved in mobile learning. The research on mobile learning has passed the exploratory stage. Through various efforts, mobile learning has gradually matured and can gradually meet the needs of students for self-directed learning, laying a foundation for their future learning and lifelong learning. In order to improve the efficiency of mobile assisted English learning in China, the study employs questionnaire survey, trying to understand the needs of students for mobile learning and the current situation of mobile learning. Based on results of survey, the researchers analyzes the problems in MALL and puts forward some suggestions to improve teaching efficiency.

1. Introduction

The popularization of smartphones and the promotion of digital campus construction provide sufficient technical supports for the development of mobile learning for college students. The acquisition of knowledge of college students is no longer limited to traditional paper-based media and traditional face-to-face classrooms. Mobile learning has become an emerging learning method gradually entering the learning life of college students, becoming an important supplement to the learning of contemporary college students[1]. College English learning is no exception. Mobile learning has become a characteristic and direction of the development of college English education. Mobile learning of college English based on smartphones meets the needs of fragmented learning in the era of big data, greatly improving the learning efficiency of learners.

Mobile learning has entered a flourishing stage outside of China, and scholars have mainly conducted extensive research on the evaluation of mobile learning effects, the design of learning systems, and the emotions and characteristics of learners. In terms of research methods, empirical research methods such as questionnaire surveys and experimental studies are mainly used. This has laid a solid foundation for the large-scale development of mobile learning in the future, achieving ubiquitous learning and promoting lifelong learning. At present, mobile learning has also become a heated topic of discussion in the Chinese higher education community. In China, research on mobile learning mainly focuses on theoretical exploration and platform development in terms of technology. China's research on mobile learning includes both the analysis of the concept and characteristics of

mobile learning, as well as the exploration of mobile learning resource design. Currently, the academic community has basically clarified the concept, connotation, and essence of mobile learning, laying a good theoretical foundation for future research on the application of mobile learning[2].

It has become a trend for college students to use mobile devices for English learning. In this trend, different students have different experiences and evaluations of English mobile learning. The research results of some scholars also indicate that the use of mobile learning has a significant promoting effect on the improvement of student learning performance. However, some scholars believe that college students are in a constantly changing learning environment and are more easily distracted by various external information, resulting in poor mobile learning effectiveness and insufficient breadth and depth of mobile learning[3].

The arrival of mobile learning not only conforms to the development trend of education in today's era, but also increases the diverse and personalized choices for the learning needs of college students. Through this survey, we can clearly understand the difficulties and usage of mobile learning encountered by college students, and provide corresponding suggestions.

2. Mobile Learning

Mobile network technology has not only changed human lifestyles, but also had a huge impact on the current education model. Especially in recent years, the emerging mobile learning advocates learners to access learning resources, communicate and collaborate with others, and achieve knowledge construction through mobile devices at any time and place. Mobile learning emphasizes technology, learning, and learner mobility.

In China, mobile learning refers to anyone receiving remote education and learning anytime, anywhere through handheld communication devices. The definition of mobile learning by the Committee of the China Higher Education Technology Association is as follows: Mobile learning refers to the use of mature wireless mobile networks, the international internet, and multimedia technology to enable students and teachers to achieve interactive teaching activities more conveniently and flexibly through the use of wireless devices (such as mobile phones, PDAs, laptops, etc.), as well as education information exchange in the field of technology. Learners choose learning content and determine their learning progress based on their existing level, interests, and needs. Therefore, mobile learning presents personalized characteristics. In the process of mobile learning, there is not only interaction between teachers and students, students and students in the traditional sense, but also interaction between learners and learning resources. Learners are not passive recipients of learning resources, but also designers and presenters of learning resources, Based on this, mobile learning also exhibits interactive characteristics. Compared with traditional classroom teaching and digital learning with fixed locations, mobile learning is not constrained by location and time, therefore it exhibits characteristics of ubiquity and timeliness. Mobile learning provides innovative teaching forms, rich teaching resources, and restructured teaching processes, providing students with personalized and immersive learning experiences.

The growth process of today's college students has witnessed the development of mobile internet technology. They are known as "digital natives" and are more receptive to interactive, seamless, convenient, and multi-modal mobile learning modes. However, we have little understanding of the English learning situation of today's college students in the mobile learning environment. Therefore, this study attempts to provide case studies for the development of mobile learning in the field of college English through a survey questionnaire, and provide suggestions for the application of mobile learning in college English[2].

3. Survey on Mobile English Learning

3.1 Research Design

In order to promote the improvement of English learning level among college students, it is necessary to solve the problems existing in mobile learning to meet the personalized and autonomous learning needs of learners. The purpose of this survey is to comprehensively understand the needs of students for mobile learning and the current situation of mobile learning. The survey questionnaire takes the current situation of English mobile learning among college students as the starting point, and conducts research on multiple aspects such as the mobile storage devices owned by college students, the purpose of English mobile learning, the attitudes of learners towards mobile learning, and the demand for resources. The existing problems are analyzed, conclusions are drawn, and corresponding countermeasures are proposed.

The survey questionnaire adopts an anonymous method, which prompts the respondents that the answers do not involve any personal privacy, and there is no right or wrong answer, so that the surveyed students can make practical answers based on the actual situation as much as possible. This authenticity also relatively determines the reliability of the research results.

3.2 Research Object

This study used a questionnaire survey method, with students on campus as the sample. This questionnaire survey adopted a convenient sample format and distributed 58 questionnaires to universities, among which 56 valid questionnaires were collected.

3.3 Research Tool

The questionnaire consists of 28 sub-questions. The main content of the questionnaire includes the following aspects: (1) The usage of mobile devices, such as the ownership of mobile devices (such as mobile phones, laptops, iPads, etc.); (2) Mobile learning preferences, such as preferred mobile learning content, information reception status, information reception methods, etc; (3) Mobile learning behavior, such as when to conduct mobile learning, attention level during the process of mobile learning, average daily time spent on mobile learning, and the situation of mobile foreign language learning; (4) Attitude towards mobile learning, such as how to handle the learning information received by mobile phones, evaluation of mobile learning, etc.

3.4 Research Data Collection

The research subjects of this study are first-year non English major students from Beijing Institute of Petrochemical Technology. A survey method was adopted and the survey questionnaire was distributed online through the questionnaire website. The questionnaire study takes mobile learning as the starting point and takes the English learning of college students as an example. It is hoped that through investigation and research, the current situation of college students using mobile devices for English learning can be fully understood. Through analysis of the current situation, the characteristics of mobile English learning among college students and the problems existing in this process can be summarized.

3.5 Results

3.5.1 Devices

Having a mobile device is an essential condition for conducting mobile learning, and satisfaction with the mobile device can also have an impact on the effectiveness of mobile learning. A smartphone per person is already a standard feature for every college student. Compared to desktop computers, laptops are lighter, occupy less space, and can be carried around.

Table 1: Advantages of mobile devices

Options	Numbers of choices	Percentage
Increased learning selectivity	33	58.9
Enhanced daily learning effectiveness	26	46.4
Clearly defined learning objectives	15	26.8
Provided timely feedback and evaluation	20	35.7
Obtained more and richer learning information	29	51.8
Learning is more convenient	40	71.4

Table 1 indicates that the current mobile devices can better meet the needs of students for mobile learning.

3.5.2 Resources

Mobile resources are a very beneficial supplement to classroom learning. They can mobilize multiple senses, present in diverse ways, and can be downloaded for learning anytime, anywhere. Targeted and high-quality mobile learning resources are what college students need today.

Table 2: The most commonly used media materials

Options	Numbers of choices	Percentage
Texts	36	64.3
Audios	32	57.1
Videos	27	48.2
Pictures	19	33.9
Animation	12	21.4
Comprehensive materials	18	32.1

Table 2 shows that students are more inclined to use text, audio, and video resources when using mobile resources for English mobile learning.

3.5.3 Learning Style

Table 3: English mobile learning methods

Options	Numbers of choices	Percentage
Search for information	32	57.1
Communicate and interact with classmates	24	42.9
Mobile interactive Q&A	29	51.8
Doing exercises	24	42.9
Download learning materials	10	17.9
test	11	19.6

Learning style refers to the preferred behavioral patterns and characteristics exhibited by individuals during learning activities.

Table 3 indicates that students are more inclined to search for information, communicate and

interact with classmates, mobile interactive Q&A and do exercises when learning.

3.5.4 Time

Table 4: Time allocation for English mobile learning

Options	Numbers of choices	Percentage
Less than 30 minutes	19	33.9
30-60 minutes	25	44.6
1-2 hours	6	10.7
More than 2 hours	2	3.6
Not certain	4	7.1

Table 4 indicates the amount of time students spend on mobile learning every day. Among them, more students spend less than an hour a day on mobile learning.

3.5.5 Barriers

How to solve the problems in mobile learning is a challenge to the teaching and management abilities of teachers. Teachers must participate in the process of student mobile learning, guide students to carry out purposeful, strategic, and efficient mobile learning.

Table 5: Interference of commercials and news

Options	Numbers of choices	Percentage
Yes	39	69.6
No	9	16.1
Not care	8	14.3

Table 5 shows that the pop up of commercials and news interfere with the mobile learning.

4. Discussion

Firstly, the construction of resources should meet the needs of students. In the process of constructing mobile learning resources, it is necessary to build intuitive and visual resources, and enhance the fun of mobile learning through vivid images and rich sound effects [4]. Rich learning resources are the material conditions for students to effectively engage in mobile learning. The design and provision of mobile learning resources should fully consider the learning needs of students themselves. Generally speaking, learning resources with characteristics such as simplicity, ease, short text, and multiple links are more conducive to promoting mobile learning. Secondly, optimize the design of learning content. The teacher who serves as a scaffold has the responsibility to provide guidance on the presentation of learning content, design precise but not greasy content, and stimulate students' interest in learning through information exchange. It should be noted that learning content is not only the transmission of learning resources, but more importantly, the learning content carefully designed by teachers for students. Thirdly, teachers should guide the integration of classroom teaching with mobile English learning. In a student-centered and teacher led English learning environment, fully expanding students' extracurricular self-directed learning time, if teachers can develop corresponding mobile learning resources based on school-based learning content to support students' extracurricular self-directed learning, or by developing flipped classrooms under mobile learning modes, it will produce twice the result with half the effort[2]. Finally, teachers should promote a combination of mobile learning and autonomous, collaborative learning methods. The combination of mobile learning and self-directed learning can effectively stimulate the strong motivation of normal school students for mobile learning, enhance their strong interest in mobile learning, cultivate good mobile learning habits, and thus achieve better mobile learning outcomes. In addition, cooperative learning can change the closed learning mode of

individual students, cultivate their awareness and ability to communicate, collaborate, and interact with others[1].

5. Conclusion

With the maturity of 4G networks and the popularity of smartphones, students' learning and life are also undergoing changes, and mobile learning is gradually becoming one of the currently popular learning methods. In the current era of information technology, mobile learning provides students with a great way to learn[4]. Students can also download course resources from the teaching platform through mobile terminals without being limited by time and location, receive learning tasks, and directly upload assignments to the platform in the form of audio, video, images, or text after completing them. After the teacher corrects, students can directly view their personal homework ratings on the platform and appreciate excellent homework. Students can also seek help from teachers and classmates regarding their learning questions, and share excellent resources they have found on the platform. Students can pay timely attention to the teaching management notices issued by teachers, and can also provide feedback on teaching through the survey questionnaires issued by teachers [5].

The development of English mobile learning in universities already has basic software and hardware conditions, and college students also have the awareness and desire for mobile learning. From the perspective of teachers, they should further guide students to recognize the advantages of mobile learning and encourage them to engage in active and effective mobile learning after class, rather than passive learning without purpose or strategy. In daily teaching, teachers help them learn to set informal learning goals, cultivate their mobile learning strategies, and consciously apply them in the learning process, develop suitable mobile learning plans, and strengthen self-supervision. At the same time, teachers should also be familiar with various APPs, WeChat official account and English learning websites, so as to provide students with specific, personal and targeted mobile learning guidance. Teachers also need to be at the forefront of mobile teaching, improve their information technology application abilities, and normalize mobile teaching in order to influence students' mobile learning. Finally, from the perspective of students, as the main body of mobile learning, college students should fully utilize mobile learning resources and fragmented informal learning time, develop intermittent learning into continuous learning and cultivate habits. It is supposed to improve self-learning ability, gradually change the learning purpose centered on passing exams, strengthen internal motivation for learning, and enhance lifelong learning awareness. Mobile learning has a wide range of application prospects, providing very convenient conditions for teachers to teach and students to learn. In today's highly developed internet, people's learning methods are undergoing subtle changes, and mobile learning will become an inevitable choice for the development of English in universities [6].

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