The Effect of Socio-Economic Status on Informal Mobile-Assisted Language Learning

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Abstract
In this study, the researcher investigated the role of socio-economic status (SES) on acceptance and usage of mobile devices for the purpose of informal language learning. In order to compare students of different SES, the researcher collected data from public university and private university students. Data were collected through a paper-based survey instrument and semi-structured interviews. The results of the survey were analyzed quantitatively using descriptive and inferential statistics. After analyzing these data, several students were asked to participate in semi-structured interviews to delve deeper into the answers they provided on the questionnaire. The results of this study showed that there was a significant difference in usage of informal mobile-assisted language learning between students who were economically advantaged and those who were not.

Keywords: Informal learning, Socio-economic status, MALL, Japanese students, Higher education

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Introduction

Japan is known as a highly technologically proficient country with a wealthy population. However, since the 1990s, the country has been in economic recession. Currently, one in six Japanese children live under the poverty line (CAO, 2015). This growing socio-economic gap reduces the chances of these children gaining access to quality education and the technical skills necessary to thrive in the modern world. In particular, English language skills are important for success in a wide range of careers. In this global society, companies are expanding their businesses beyond local boarders and connecting to other companies around the world. Because of this trend, people must possess adequate proficiency in English to communicate with associates or customers in other countries. In addition, in order to encourage people to work in international situations, numerous Japanese companies are using English proficiency as a criterion for hiring and promotion decisions. University students need to study English to prepare for their future and mobile technology offers several advantages to help them in this task. Mobile technology provides an opportunity to study in any place and at any time. Yet, the growing economic gap between citizens, might affect access to these devices. Furthermore, because lower socio-economic status (SES) students might have less opportunity to study and travel abroad, their interest and familiarity with foreign language media might be reduced, which could impact their informal contact with this content. For these reasons, it is important to find out how SES might affect students' informal mobile assisted language learning (MALL).

Literature Review

SES in Japan. Japan is one of the wealthiest countries in the world, however, poverty and wealth inequality are growing concerns. According to Ministry of Health, Labor and Welfare (2016), since 1985, the relative poverty rate has been increasing every year. In 2016, the relative poverty rate was 15.6, which means that 15.6 % of the population lived under the poverty line. In addition, a number of research studies have explored the relationship between SES and education.

A research group from Ochanomizu University (2013) conducted a study regarding the factors that influence elementary and middle school students' learning such as SES, parents' academic background, students' learning environment outside of school and their motivation. The researchers found that students from higher SES received higher scores on Japanese reading and math exams than lower SES students. The possible reasons cited were that students with higher SES and parents with higher academic background were provided with more opportunities for learning such as the chance to interact with English-language speakers and foreign cultures, library access, and talking about school life or their future at home. These activities indirectly influenced students' current learning habits and might also influence their learning in higher education settings.

The Japanese university system. In Japan, public and private universities have different enrollment systems. Public universities require applicants to take both the Center Exam, a national assessment conducted by the National Center for University Entrance Examinations, and an individual examination for the university to which the student is applying. However, there is an alternate way that some students can be admitted to public university. This is through the recommendation system and the

admission office system where students are granted admission due to a special skill they possess and the results of an interview. According to the Ministry of Education, Culture, Sport, Science and Technology (MEXT, 2018), about 28% of students are accepted through this alternative system. Private universities, on the other hand, tend to offer more opportunity for students to be accepted to their universities in non-traditional ways. Approximately 40% of students, for example, were accepted through a recommendation in private universities (MEXT, 2017a). Also, because many private universities are affiliated with private secondary schools in Japan, students are often granted automatic admission if they graduate from one of these institutions. For this reason, students whose goal is to enter a public university usually spend more time preparing for standardized examinations.

Mobile-assisted language learning. Mobile learning is characterized by the use of mobile technologies to acquire knowledge anywhere and anytime. In the last decade, mobile technologies have improved greatly, and this has allowed learners to make use of the portability and flexibility of these devices across disciplines. For language learners, mobile devices are especially useful because they allow for access to authentic content, native speaker interactions, and because of the commercial opportunities, a growing number of applications to facilitate language learning.

There is a tremendous amount of literature in the field of MALL that focuses on various aspects of language learning and mobile technology. For example, Suwantarathip and Orawiwatnakul (2015) examined the improvement of vocabulary learning by using paper-based and mobile device based activities in university English-language classes. They found that the group using mobile devices improved their vocabulary test scores more than the paper-based group. This was because the mobile device group could work on their exercises outside of classroom, which provided students the flexibility to study at any place or time. This convenience also improved students' motivation for learning.

Yeh (2017) investigated the effect and perception of using podcasts for improving listening skills. The researcher found that students held a positive attitude toward podcasts and improved their listening skill through there use. In addition, students appreciated that they could choose podcasts that interested them and had access to latest information. This research indicated that in addition to improving language skill, it is possible to improve students' motivation and interest in other countries.

Shi, Luo, and He (2017) used the instant message application "WeChat" to encourage Chinese university students to communicate with each other in English. The interaction through text message made students feel comfortable to communicate in English rather than speaking English in the classroom. In addition, it helped improve their English proficiency.

These studies show the variety of ways that mobile devices can make an impact on language learning. Mobile technology provides unique leaning attributes that can motivate and interest students in the process of language learning. For these reasons, it is important to investigate how SES affects MALL and how students use and accept mobile devices to expand their opportunities for language-learning.

Purpose and Research Questions

The purpose of this research inquiry was to explore how SES impacted Japanese university students' acceptance and usage of informal MALL. The following research questions guided this investigation:

1. What is Japanese university students' overall acceptance of the use of mobile devices for informal English-language learning?
2. What is their actual use of mobile devices for informal English-language learning?
3. Are there differences in usage and acceptance due to SES?

Methodology

The research was conducted using a mixed-method approach. The quantitative data was collected through a questionnaire at two universities – one private and one public. The number of participants totaled 112 (62 from the public university, 50 from the private university). Fifty-two point six percent were male and 42.1% were female. They ranged in age from 18-20 years old. Their majors were Economics, Environmental Science, and Human Culture. The survey instrument used in this research was a modified version of the M-learning Acceptance Model (Abu Al-Aish & Love, 2013). The modification changed the focus of the instrument from general mobile learning to informal MALL in addition to translating the questionnaire to Japanese. Research conducted by Mills (2016) showed that the modified instrument is valid. In addition, a frequency of usage scale for informal MALL, developed by Mills (2016) was used in this investigation. The questionnaire included the following sections: (1) acceptance of mobile devices for informal English learning, (2) usage of mobile devices for informal English learning, (3) demographics, and (4) open-ended questions.

The qualitative data was collected through a group interview conducted in the public university. Participants for the interview were selected based on their responses to the quantitative questionnaire. The number of participants was eight - five were male and three were female. They ranged in age from 18 to19 years. Their majors were Environmental Science and Human Cultures. The interview was semi-structured, and a list of questions were created in order to guide the session. The group interview was recorded, and Excel was used to create and catalog themes by which the data was coded.

Investigating SES. One limitation that was placed on the researcher in this investigation was that the universities restricted direct questions regarding SES and financial situation because students might feel uncomfortable or hesitate to answer the questions. Therefore, the researcher hypothesized that students attending a public university were more likely to be economically disadvantaged than students attending a private university. This is because the cost of tuition is 50% less at public universities than at private ones (MEXT, 2017b). Also, there are various discounts available to students who live in the prefecture where the public university is located. For example, the public university where the researcher conducted the study has a system where students who are residents of the prefecture receive a 50% discount on the entrance fee. Moreover, research conducted by Japan Student Services Organization (2014) showed that the average family income among public university

students is lower than private and national university students. In order to investigate this hypothesis, the researcher surveyed students in both settings about why they chose to attend their respective universities. The survey question was multiple choices and students could choose the reasons of location, tuition, major, professors, reputation and other.

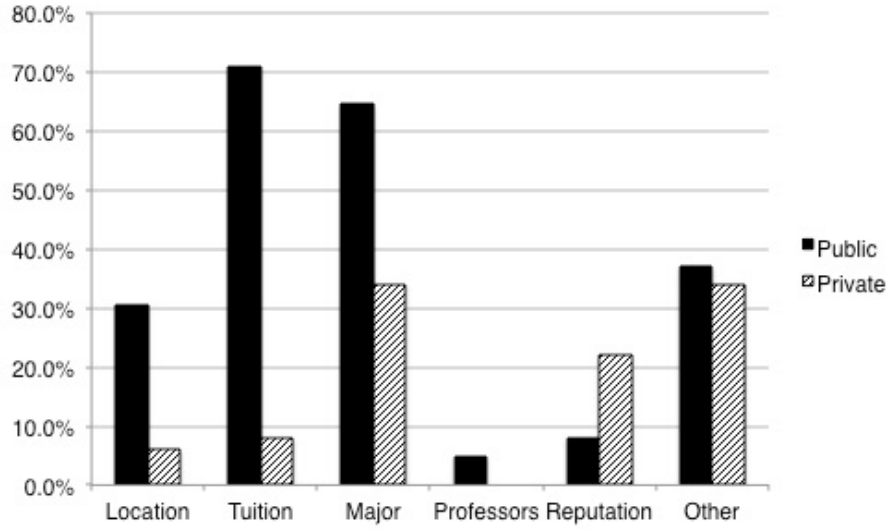

Figure 1: Reasons for choosing to attend this university

The survey results showed that 71% of students chose public university because of the lower tuition; on the other hand, only 8% chose this answer in private universities. For many of the public university students, lower tuition was as important as the major they wanted to study when choosing a university. Private university students' most important factor was major and other, but tuition was not something they needed to care about. This result supports the researcher's hypothesis that public university students are from a lower SES compared to private university students.

Results and Discussion

Acceptance. There was no significant difference between public and private university students regarding acceptance of mobile devices for informal English-language learning. Many of the students said that mobile devices were useful for informal English-language learning because of the portability and ease of use. Also, they felt that they could study in a more enjoyable way with mobile devices. This indicated that both groups of students were generally accepting of the use of mobile devices for informal English-language learning.

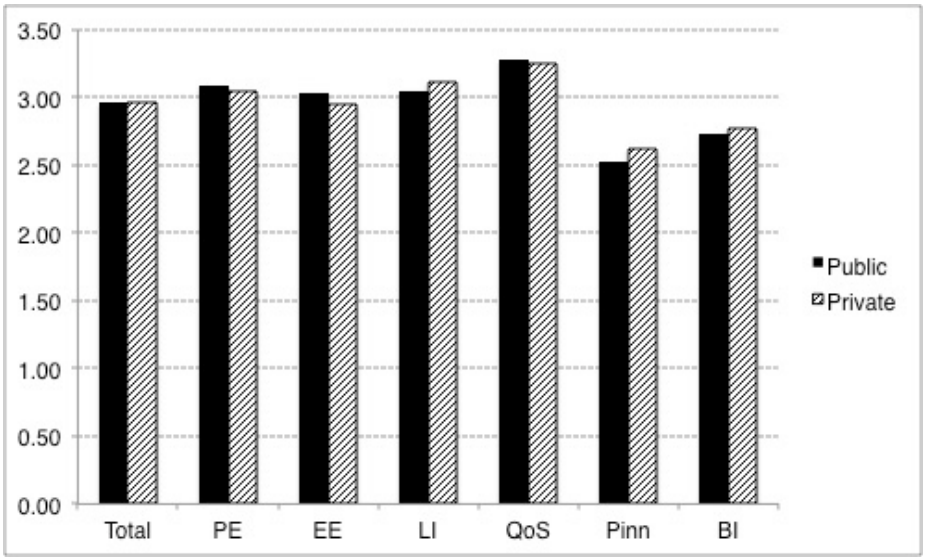

Figure 2: Acceptance of MALL

Usage. An independent sample *t* test was conducted to find a difference in usage of MALL between public and private university students. The test was significant, *t* (97) = -2.569,p = 0.012. Private university students (M=2.79, SD=0.57) used mobile devices for informal English-language learning more than public university students (M=2.48, SD=0.61).

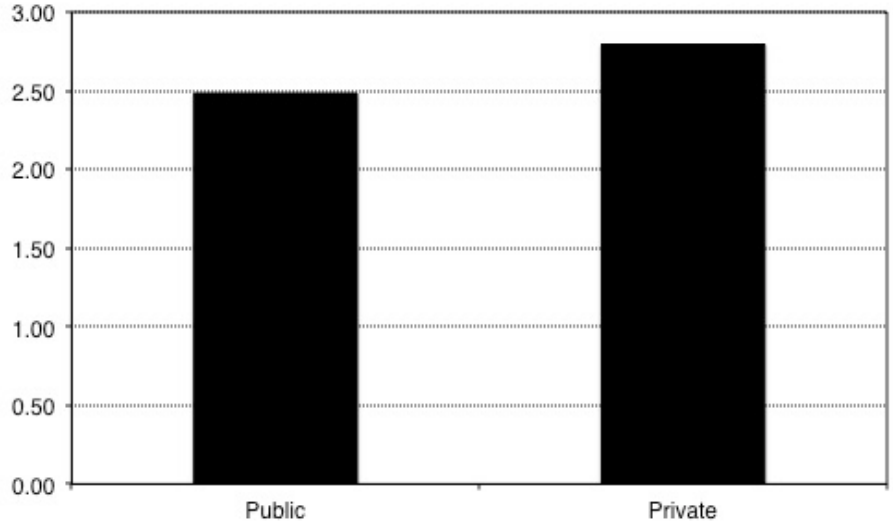

Figure 3: Usage of MALL

In addition, there was a difference regarding which informal MALL activities they engaged in. The most common activities among public university students were using dictionary and translation applications. In contrast, private university students used their devices to listen to music and watch TV shows and movies in English. These results seem to indicate that students in public universities are more likely to use their devices for self-directed study rather than unconscious informal learning.

Because it was hypothesized that private university students had a higher SES than public university students it could be inferred that SES influenced mobile device usage for informal MALL in the Japanese context both in frequency and in the types

of activities chosen. This may be explained by higher SES having greater access to technology, the Internet, and data plans than lower SES students. In addition, higher SES students are more likely to have the resources to travel abroad for study and leisure, so this may influence their usage of foreign media like TV shows, movies, and music.

Findings from group interviews. The interview was conducted with public university students focusing on their usage and perception towards MALL. Most of the students said that they used their mobile device at one time for informal learning in order to prepare for their university enrollment exam. For example, they used applications to memorize vocabulary or learn English grammar. However, all of them said that they erased these applications as soon as they finished the enrollment exam and instead, they downloaded Japanese games for entertainment. This result indicates that students are familiar with utilizing mobile device for learning, but the problem was their motivation for continuing this practice.

In contrast to private university students, the number of students who watch English speaking TV shows or movies was low among public university students. In the interview, most of the students said that they were interested in English speaking TV shows or movies, but they did not know how to find interesting ones. Thus, if the instructor introduced TV shows or movies in the classes, they would probably check them out in their free time. Through English language media content, students can learn about cultures in other countries. MALL outside of classroom provides unexpected opportunities to interact with English language that is used in real life (Kukulska-Hulme, 2017). This would be a good opportunity for lower SES students who might not have the chance to go abroad either for travel or studying English to experience how English is used in real contexts and learn about the target language culture. There are many free sources of English speaking media such as YouTube; therefore, the instructor could introduce free media to increase their cultural interaction at no cost.

All the students said that mobile technology was useful because they could use it anywhere and anytime. This is a significant advantage of using mobile devices. However, there are some downsides of using mobile devices such as battery shortage and slow processing speed (Stockwell, & Hubbard, 2013). In this setting, the obstacles of using mobile devices for informal learning were Wi-Fi connection and battery. They had limited amount of data based on their mobile provider service plans and also, their university did not provide free Wi-Fi. This is a major problem in Japan where free Wi-Fi is not easily available even now. In addition, their phone battery drained quickly; therefore, they mainly used their mobile phone at home where they have Wi-Fi and access to a battery charger. It is also important to note here that most Japanese businesses, like restaurants, don't allow customers to use the electrical sockets. It is vital that universities provide free Wi-Fi to the students so that they have access to the Internet more often, not only in their house. Students can listen or watch English language media content and might be able to improve their English skills consciously or unconsciously.

Conclusion

This research investigated how SES affected students' use and acceptance of MALL by comparing public and private university students. The result showed that there was no difference in acceptance of using MALL; both groups had positive attitude towards MALL. However, their usage of MALL was significantly different. Public university students mostly used mobile devices as a dictionary and translation tool, which are supplements for their traditional learning. On the other hand, while private university students used mobile devices dictionary and translation applications, they also used mobile devices for listening music or TV shows and movies. It indicated that students' socio-economic status background influence their English language learning by limiting amount of interaction to foreign cultures. Also, despite the portability, public students did not have access to Wi-Fi through their mobile devices because of limited data amount and not having free Wi-Fi environment. Learning English sometimes costs money, going abroad, attending English language school or buying listening materials; therefore, it was important for instructors to provide low cost or free resources so that every student has the opportunity to learn real life English and gain an interest in learning. To do so, using mobile devices have the advantage because most of students already have a smartphone. The important part is to introduce available resources and encourage students to use their mobile devices for learning.

There were some limitations to this research. First, the researcher was unable to question individual students' regarding their SES due to rules set by the universities and for ethical reasons. This hindered the researcher's ability to study the effect of SES on informal MALL effectively. Second, the researcher took a role as a facilitator in the group interview and seven out of eight participants were taking the researcher's English-language course. This was a problem because even though the researcher clearly explained that the interview would not affect their grade, they might be hesitant to state their honest opinion.

In future investigations, researchers should attempt to find a more accurate measure of SES than was used here. Also, when collecting data through an interview, it would be better if an outside facilitator is used rather than the participants' instructor. This would help in reducing bias and the negative effects of unequal power distance relationships.

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