International Posture and Ideal L2 Self as Determinants of Informal Mobile-Assisted Language Learning

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Abstract
The purpose of this research study was to investigate the relationship between international posture and ideal L2 self and university students' usage of mobile devices for informal English-language learning. A paper-based instrument was distributed to undergraduate students enrolled in English as a Foreign Language (EFL) courses. One-hundred and four students participated in the research. The survey included five sections (1) international posture, (2) ideal L2 self, (3) usage of mobile devices for informal English-language learning, and (4) demographics. The results of the inquiry showed that international posture and ideal L2 self were significantly and positively correlated with usage of mobile devices for informal English-language learning. However, the construct of ought to L2 self was not significantly correlated to informal mobile-assisted language learning (MALL) usage.

Keywords: informal learning, mobile-assisted language learning, international posture, ideal L2 self

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Introduction

In recent years, mobile devices have become popular tools used to facilitate language learning due to their unique characteristics (Sung, Chang, & Liu, 2016). In addition, mobile technologies provide language learners with unrestricted access to educational materials and content, as well as the opportunity to communicate with native speakers of the language one is studying (Demouy, Jones, Kan, Kukulska-Hulme, & Eardly, 2016). In the Japanese context, where the study takes place, the penetration rate of mobile devices is very high. Research conducted by Mills (2016) reported that 98.8% of 977 students surveyed at a private Japanese university had access to a smartphone. While these devices can be used in a variety of contexts, they are especially beneficial for informal learning because they have become normalized in the lives of users (Chen, 2013; Jones, Scanlon, & Clough, 2013; Kukulska-Hulme, 2010). However, engagement in informal learning is largely determined by the motivation of the learner. Therefore, it is important to understand how factors that influence language learning motivation affect the practice. A number of theories and systems regarding second language (L2) motivation have been developed in the preceding decades. Based on previous research conducted by the author of this paper in the field of informal mobile-assisted language learning (MALL) in Japan, it was concluded that the concepts of international posture (Yamashina, 2002; 2009) and two components of the L2 motivational self-system (Dörnyei, 2009) – ideal L2 self and ought to L2 self - might prove to be significant determiners of usage of mobile devices for informal English-language learning.

Literature Review

Mobile-assisted language learning. In the past decade, the proliferation of mobile devices has changed the way we interact with each other, access media, and learn new information, in both formal and informal environments. Mobile learning has become an important topic of research, policy and practice for educators all over the planet as they strive to keep up with their students and the technology. For language learners, mobile technology offers the advantage of near endless exposure to the target language through digital content and communication tools that facilitate interaction with native and advanced speakers (Demouy et al., 2016). Research in the field of MALL has been prolific in recent years and has demonstrated a number of applications of mobile tools in a variety of contexts. For example, Şahan, Çoban, & Razi, (2016) examined how English idioms can be learned using the popular communication application *WhatsApp*. Gamification and its effect on language learning and motivation has also been explored through the use of *Duolingo* (Rachels & Rockinson-Szapkiw, 2018). The results of that research showed that independent study using the application was equivalent to face-to-face instruction in terms of academic self-efficacy and language achievement. Finally, researchers in the field of MALL have explored how social media applications, such as LINE, can be used to facilitate various aspects of language acquisition (Liu & Wu, 2016; McCarty, Sato, & Obari, 2016).

While MALL research has addressed a wide variety of functions in formal contexts, studies of how the technology is used in informal settings are less prevalent. According to Demouy et al. (2016), more research is needed that explores learner initiated uses of mobile technology in informal environments. Research conducted in

Japan by Mills (2016) showed that undergraduate university students were generally accepting of the use of their personal mobile devices for informal English-language learning. However, they mainly used these devices to engage in passive learning activities such as listening to music in the target language or accessing translation or dictionary applications. These findings were corroborated by Lai and Zheng (2017) who researched the use of mobile devices for self-directed, out-of-class language study at a Hong Kong University. These researchers discovered that activities associated with the personalization of learning, such as the use of translation and dictionary applications, were engaged in more often than activities associated with authenticity (e.g. watching videos) or social connection (e.g. social networking sites). The researchers (Mills, 2016; Lai & Zheng, 2017) asserted that the factors which influence informal MALL usage need to be further studied in order to create educational interventions to promote the learning activities that were shown to be underrepresented in these investigations

International posture. International posture was introduced by Yashima (2002, 2009) in order to measure readiness to engage in intercultural communication. The original scale (2002) included the constructs of intercultural approach, interest in international vocations, ethnocentrism, and interest in foreign affairs. Yashima (2009) added items to the interest in foreign affairs construct and introduced the dimension of having things to communicate to the world. The instrument makes use of a 6-point Likert scale and contains 20 items (Yashima, 2002); the updated version contains 28 items (Yashima, 2009). Examples of items include: "I want to make friends with international students studying in Japan," "I am uncomfortable with the things foreigners say and how they act," and "I have a strong interest in international affairs."

Ideal L2 self and ought to L2 self. Ideal L2 self (Dörnyei, 2009) refers to the future abilities and skills a learner imagines he or she will possess in terms of the target language. In contrast, the dimension of ideal ought to self is associated with the negative consequences a learner might face if they fail to develop sufficient proficiency in the target language (Dörnyei, 2009). Both instruments utilize a six-point Likert and have been tested in a variety of contexts and languages. Reliability analysis of the scale in various studies has shown the instrument to be an acceptable measure of the motivational self system. The following are examples of statements found in the scales: "I can imagine myself living abroad and having a discussion in English," The things I want to do in the future require me to use English," "If I fail to learn English, I'll be letting other people down," and "My parents believe that I must study English to be an educated person."

Research Questions

The purpose of this research study was to investigate the relationship between international posture and ideal L2 self and university students' usage of mobile devices for informal English-language learning. The following research questions were addressed in this study:

1. What is students' overall international posture and ideal L2 self?
2. What is Japanese university students' actual use of mobile devices for the purpose of informal English-language learning?

3. What is the relationship between international posture and ideal L2 self and actual use of mobile devices for informal English-language learning?

Methodology

Setting and sample. The setting of this research was a large, private university located in Western Japan. The sample was selected from three English as a Foreign Language (EFL) courses taught by the researcher in the Economics Department of the university. From these three courses, 125 students were asked to participate in the study. One-hundred and four students chose to complete the researchers' questionnaire, which made the response rate 83.2%.

Participants. All of the participants in the study were first-year undergraduates majoring in Economics. Only two students identified their ethnicity as non-Japanese – Jamaican and Chinese. The majority of the students were male (63.1%). Thirty-five percent of students were female and 1.9% chose to provide no answer to this question. The participants ranged in age from 18 to 21 ($M = 18.83$).

The participants had access to a number of mobile devices. Most students reported owning a mobile phone (99%). This was followed by MP3 players (51.9%) and portable game consoles (40.4%). Tablet computers (24%) and e-book readers (18.3%) were the devices to which participants had the least access.

Instrument. The paper-based questionnaire used in this study consisted of 61 items. The language of the questionnaire was Japanese. The instrument was divided into four sections: (1) international posture, (2) ideal L2 self, (3) informal MALL usage, and (4) demographics. The international posture scale was created by Yashima (2002) and consists of 22 items. Permission to use this scale for the current research project was obtained from Professor Yashima. The international posture scale is sub-divided into four constructs: (1) intercultural approach, (2) interest in international vocation, (3) ethnocentrism, and (4) interest in international affairs. A six-point Likert scale was used to record participant responses to the scale items: 1 (*strongly disagree*), 2 (*disagree*), 3 (*somewhat disagree*), 4 (*somewhat agree*), 5 (*agree*), 6 (*strongly agree*). A reliability analysis of the total scale and sub-scales was conducted using Cronbach's Alpha. The results of this analysis showed that the total scale ($\alpha = .81$) and three of the sub-scales, intercultural approach ($\alpha = .75$), international vocation ($\alpha = .81$), and international affairs ($\alpha = .75$) were acceptable. However, the ethnocentrism sub-scale displayed an unacceptable alpha of .43.

While the ideal L2 self and ought to L2 self scales were originally created by Dörnyei, 2009, a modified version, produced by Mystkowska-Wiertelak and Pawlak (2016), was used in this study. Permission to translate and use that version was obtained from the authors. Both the ideal L2 self and ought to L2 self scales contained 10 items. A six-point Likert scale with responses identical to international posture were utilized. The scales were translated by a native speaker of Japanese who possesses a high-proficiency in the English language. The translation was checked by an additional native speaker of Japanese with similar proficiency in English. The Cronbach's Alpha for the two scales was .96 and .87 respectively, which showed that the reliability of the scale was maintained despite the translation.

The frequency scale used to measure informal MALL usage was developed by the researcher (Mills, 2016) based on previous findings regarding mobile device usage (Cheung & Hew, 2009; Patten, Arnedillo-Sánchez, & Tangney, 2006), a prior instrument (Santos & Ali, 2011), and the researcher's observation and experience. Participants were asked to report on the frequency with which they engaged in several informal MALL activities in English including watching videos, playing games, and listening to music. The responses were recorded using a 5-point Likert scale: 1 (*never*), 2 (*rarely*), 3 (*occasionally*), 4 (*frequently*), 5 (*very frequently*). Participants were also asked to report whether they most often engaged in these activities consciously or unconsciously and what device they used for these activities. Furthermore, they were asked to estimate the number of hours a week they engaged in informal MALL. In order to ensure uniformity of responses, the participants were provided with the following definition of mobile devices and informal English-language learning:

> *Mobile devices* are smartphones, tablet computers, MP3 players and other portable, hand-held, electronic devices that can be used for the learning of languages.
> *Informal English-language learning* is any activity that has the potential to improve your proficiency in English but is not directly related to structured classes like the ones you take at university or at a private language school. Informal English-language learning can occur consciously (i.e., watching an English-language movie for the purpose of study) or unconsciously (i.e., watching an English-language movie for entertainment).

The fourth section of the survey instrument consisted of five demographics questions: (1) age, (2) nationality, (3) gender, (4) school year, (5) mobile devices owned. This information was used to better understand the participants, and to inform the researcher to whom the results could be generalized.

Data collection and analysis. A paper-based instrument was distributed to the participants in three classes during the Fall semester 2017-2018. In addition, the researcher provided students with a letter, in Japanese, that informed them of their rights as research participants and also explained informal MALL and the purpose of the research (see above). Students were told that participation in the research study was not mandatory and would not affect their grade in any way.

Once the data was collected, it was input into an SPSS worksheet. Frequencies were calculated for all survey items. Missing values in the data set were replaced by the series mean. Outliers were identified through the computation of z-scores. Descriptive statistics were calculated for all the total and sub-scales. A Pearson's Product Moment Correlation was computed to ascertain the relationship between usage and the constructs of international posture as well as ideal L2 self.

Results

Research question 1a: International posture. There were several interesting findings regarding participants' responses to the international posture scale. The vast majority of students agreed that international affairs had an impact on their daily lives in Japan (91.3%). Yet, only 33.7% of students expressed an interest in international

news. Most of the respondents stated that they had an interest in making friends with foreign students who were studying in Japan (88.5%) In addition, the majority of participants did not report an aversion to non-Japanese customs and senses of value (73.1%) and were comfortable with the idea of a non-Japanese person living next door to them (81.7%). In general, the students surveyed for the study displayed an above average propensity towards international posture. The lowest mean score was associated with the sub-scale of ethnocentric behavior, while the highest mean was related to intercultural approach (Table 1).

Table 1
Means and Standard Deviations for International Posture (Total and Sub-scales)

Scale	*M*	*SD*
International Posture (Total Scale)	3.78	0.56
Intercultural Approach	4.00	0.76
Interest in International Vocation	3.90	1.02
Ethnocentric Behavior	3.60	0.62
Interest in International Affairs	3.43	0.96

Note. Scale ranging from 1 – *strongly disagree* to 6 – *strongly agree*.

Research question 1b: Ideal L2 self and ideal L2 self. Overall, it seemed as if the participants surveyed had a difficult time imagining themselves as proficient English speakers and using those skills in international communication. Only 33.7% of those surveyed, for example, could picture themselves living abroad and having a conversation in English, while only 34.6% could imagine studying in a university where English was the primary language of instruction. The statement that the most participants (74%) disagreed with was that they would attain native ability in English at some point in their lives. However, a majority of the respondents agreed that English was a requirement for many of the things they hoped to do in the future.

When questioned regarding outside influences on their motivation to study English a slight majority of students stated that approval from others played a role in their learning (58.3%). They also believed that there was an expectation by the people around them to study the English language (59.3%). However, disappointing parents was not seen as a major motivator to study (26.2%). Participants agreed that not learning English would have a negative impact on their lives (57.3). An analysis of the total scales showed that Ideal L2 Self displayed a higher mean than ought to L2 Self (Table 2).

Table 2
Means and Standard Deviations for Ideal L2 Self and Ought to L2 Self

Scale	*M*	*SD*
Ideal L2 Self	3.32	1.13
Ought to L2 Self	3.18	0.91

Note. Scale ranging from 1 – *strongly disagree* to 6 – *strongly agree*.

Research question 2: Actual use. The participants in this study reported to engage in informal MALL for self-directed study (62.5%) more often than for incidental learning (32.7%). Self-directed study can be described as conscious autonomous learning where the subject performs an activity, such as watching an English-

language TV show, with the clear purpose of learning English. In contrast, incidental learning occurs unconsciously when engaging in an activity for a reason other than studying, such as watching an English-language TV show for entertainment. Participants reported engaging in informal MALL from 30 minutes to 20 hours in a week. However, most participants stated that they used their mobile devices for informal English-language study for about one hour a week.

Participants utilized their personal mobile phones most often when learning informally (99%). This was followed by MP3 players (23%) and tablet computers (14.4%). E-book readers (9.6%) and portable game consoles (6.7%) were utilized least frequently for informal MALL.

Participants were also queried regarding the type of activity they performed during informal study. The activities that students engaged in the most for informal MALL were listening to English-language music (M=3.56), and using dictionary (M=3.52), and translation applications (M=3.21). Students also reported watching English language videos on sites such as YouTube with some frequency (M=3.19). The activities least frequently reported were listening to spoken English, podcasts for example (M-2.23), reading or listening to English-language news (M=2.21) and playing English language digital games (M=2.07). While the use of English on social media sites was still underrepresented in the activities reported – 30.8% of students reported never to use these sites in English – this is a marked improvement from the 40% of students that reported the same in a previous study (Mills, 2016). Table 3 displays the results for the usage frequency scale.

Table 3
Uses of Mobile Devices for Informal English Language Learning

Item	Response (Percent)				
	N	R	O	F	V
English-language websites.	18.3	30.8	36.5	11.5	2.9
English-language social networking sites.	30.8	25.0	31.7	9.6	2.9
English-language learning applications.	23.1	25.0	28.8	18.3	4.8
English-language games.	38.5	26.9	25.0	8.7	1.0
English-language music.	3.8	13.5	29.8	27.9	23.1
English-language spoken audio (i.e. podcasts).	29.8	32.7	24.0	11.5	1.9
English-language videos (i.e. YouTube).	8.7	17.3	35.6	23.1	15.4
English-language TV shows or movies.	12.5	24.0	29.8	24.0	8.7
Dictionary applications.	5.8	13.5	23.1	38.5	19.2
Translation applications.	9.6	22.1	21.2	31.7	15.4
English-language e-books.	36.5	24.0	23.1	11.5	4.8
English-language news.	27.9	40.4	16.3	10.7	3.9

Note. Scale ranging from 1 – *never* to 5 – *very frequently*.

Research question 3a: Relationship between international posture actual usage.
A Pearson's Product Moment Correlation was calculated between the International
Posture total scale and sub-scales and the usage scale. For the purpose of controlling
Type I errors, the Bonferroni approach was used, necessitating a p value of less than
.005 (.05/10 = .005). The total scale, as well as three sub-scales – intercultural
approach, interest in international vocation, and interest in international affairs –
showed a significant correlation. In addition, the total scale and the subscales of
intercultural approach and interest in international vocation displayed a correlation
coefficient above .30. Table 4 below outlines the results of this analysis. The results
of this analysis indicate that international posture is a reliable determinant of informal
MALL usage in the context of this study.

Table 4
Correlation Between International Posture Usage Scale

International Posture Scales	Usage Scale
Total Scale	.541*
Intercultural Approach	.431*
Interest in International Vocation	.508*
Ethnocentric Behavior	.001
Interest in International Affairs	.260*

Note. $*p < .005$

**Research question 3b: Relationship between ideal L2 self and ought to L2 self
and actual usage.** Correlation coefficients were also calculated between ideal L2 self
and the total usage measure as well as ought to L2 self and the total usage measure.
The Bonferroni approach was also employed in this test and the results showed a
significant correlation between ideal L2 self and informal MALL usage but no
significant results was found relating to ought to L2 self and usage. This would seem
to indicate that intrinsic motivation, which is associated with ideal L2 self, is a more
reliable predictor of informal MALL usage than the factors relating to extrinsic
motivation that are found in the ought to L2 self instrument. Table 5 displays the
correlation coefficients and significance found in this test.

Table 5
Correlation Between Ideal L2 Self and Ought to L2 Self and Usage Scale

International Posture Scales	Usage Scale
Ideal L2 Self	.596*
Ought To L2 Self	.039

Note. $*p < .005$

Discussion

The results of this research were interesting in several ways. First, Japan is known as
a country which is relatively closed to outsiders both historically and in the present
day. The economy is currently facing an uncertain future due to the aging population
and low birth rate. Yet, there is a reluctance to open Japan to immigration due to fears
of dealing with foreign cultures and languages. Despite this, the responses of
participants to items on the international posture scale seem to indicate an openness to
international communication and acceptance of non-Japanese people and customs.
This could be an indication that young people are becoming more international in

their way of thinking. It could also be explained by the fact that the participants are all students at a "Super Global University." This is a designation given by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) to top level higher education institutions in the country tasking them to attract international students, provide English-language courses of study and promote international research (Japan Society for the Promotion of Science, 2011). Therefore, responses to international posture might differ if the study was conducted at a university without the super global distinction.

Responses to the ideal L2 self and ought to L2 self scales seem to indicate that participants were more motivated to learn English because of an idealized image of their future self using their ability rather than by the negative consequences and judgements of others that would occur if they did not achieve proficiency in the language. This was interesting because several Japanese cultural propensities such as a need to maintain face and a feeling of obligation to please superiors and parents (Gudykunst & Kim, 2003), would seem to indicate a greater mean score with items on the L2 ought to scale. However, as these students have just embarked on their university studies, they may be embracing their new-found freedom and be rejecting, to a certain extent, the obligations they felt as high school students.

The results of the usage data gathered corresponds with the findings of earlier studies (Mills, 2016; Lai & Zheng, 2017) which showed that students are engaging in informal English language learning, but are choosing passive learning activities such as the use of dictionary applications and listening to music, rather than social media sites and interactive games. One surprising result here was that 40% of students reported owning a mobile gaming device, but did not use it for informal English-language study. Researchers such as Peterson (2016) have found that digital games can beneficial to second-language acquisition in the Japanese context; therefore, it seems that there is an opportunity present for researchers and educators to exploit ownership of these devices among the target population for the purpose of language learning.

The discovery that international posture and ideal L2 self were significantly and positively correlated with usage of mobile devices for informal English-language learning can be explained by a desire to be a part of the L2 community. Because mobile devices can facilitate access to these communities through media and communication tools like social networking sites (Demouy et al., 2016), it is understandable that higher mean scores to these scales would indicate a higher propensity to use mobile devices for informal MALL.

Considering the above, in order to promote informal MALL activity among students, educators can conduct interventions to increase international posture and ideal L2 self. One way to do this is to encourage or facilitate short-term study abroad experiences. A 2018 project by Lee discovered that participation in short-term study abroad programs has a positive and significant impact on university students international posture. However, physical international exchange can be costly and may not be available to all. Interestingly, Ockert (2017) discovered that international posture could also be increased in Japanese elementary school students through exchanges with native speakers via the voice over internet protocol Skype. Further research will need to be conducted to see if similar results can be achieved with

university-aged participants. While these examples are focused on international posture rather than ideal L2 self, research by Yashima (2009) showed that the constructs are linked, and therefore, an increase in one would likely result in an increase in the other.

Conclusion

The purpose of this research project was to determine the influence that international posture, ideal L2 self, and ought to L2 self have on usage of mobile devices for informal English-language learning in the Japanese university context. Participants' responses to items on the international posture scale showed that they are open to the idea of international communication. Intercultural approach and interest in international vocation displayed the highest mean scores in this dimension. It was also found that mean scores on the ideal L2 self scale were higher than those on the ought to L2 self scale. A significant and positive correlation was found between the informal MALL usage measure and the total international posture scale as well as the sub-scales of intercultural approach, interest in international vocation, and interest in international affairs. A significant positive correlation was also discovered between informal MALL usage and ideal L2 self, but not with ought to L2 self.

Several limitations were present in this study that should be addressed in future research. First, the survey instrument was distributed in the researchers' classes. This could present problems regarding investigator bias (Gravetter & Forzano, 2009) and unequal power distance relationships (Creswell, 2014). In addition, the researcher chose to only use the original four dimensions of Yashima's (2002) international posture scale – intercultural approach, interest in international vocations, ethnocentrism, and interest in foreign affairs. An updated version of the scale which included the construct of having things to communicate to the world" was added in 2009. The researcher decided not to use this dimension for the sake of brevity and because this was a preliminary investigation. However, future research in this area should make use of the updated instrument. Finally, additional studies on this subject would benefit from surveying a more diverse selection of participants and triangulate quantitative data with qualitative techniques such as semi-structured individual and group interviews. Furthermore, having students keep an informal MALL usage diary would add to the accuracy of the self-reported frequency scale.

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