

Background and Purpose

Over the years, studies have overwhelmingly shown that mobile technology could benefit language learning (Abbasi & Hashemi, 2013; Baleghizadeh & Oladrostam, 2010; Başoğlu & Akdemir, 2010; Chen & Hsu, 2008; Chinnery, 2006; Huang & Sun, 2010; Jolliet, 2007; Saran, Seferoglu, & Cagiltay, 2009; Song & Fox, 2008; Stockwell, 2010). In other words, mobile-assisted language learning (MALL) has already been examined in depth on different language skills and has fully proved its advantages and effectiveness (Baleghizadeh & Oladrostam, 2010; Huang & Sun, 2010; Saran et al., 2009; Song & Fox, 2008).

In previous MALL studies, the utilization of built-in mobile applications (Apps) has been the main focus, for example learning through short message service (SMS) (Hayati, Jalilifar, & Mashhadi, 2013; Motallebzadeh & Ganjali, 2011; Tabatabaei & Goojani, 2012) and learning through the use of recording function (Gromik, 2012; Hsu, Wang, & Comac, 2008). In addition, foreign languages have been the most popular curriculum area supported by Apps (Shuler, 2009). Gradually, the research focus has started to shift from devices themselves or built-in Apps to the third-party Apps (Lee, 2014; Redd, 2011; Wang, Teng, & Chen, 2015).

In this study, learners' intentions to study English vocabulary with the assistance of two Apps working together were explored. "Ankidroid Flashcards" is an electronic flashcard App to facilitate retention. This App was chosen because it features the function of vocabulary recall and space-repetition practice, and providing active-recall testing to further ensures vocabulary retention. In fact, as Oxford and Crookall (1990) indicated, although flashcards are very popular with language learners, no empirical testing of the effectiveness of the flashcard technique is done prior his time. Later research on the use of flashcards centered on comparing the traditional flashcards and computer or mobile phone use (Azabdaftari & Mozaheb, 2012; Başoğlu & Akdemir, 2010; Nakata, 2008; Zhang, Song, & Burston, 2011) but not the effectiveness of using e-flashcards. Nakata (2011) conducted a comprehensive investigation of nine flashcard software for learning vocabulary learning. This study pointed out that existing flashcard programs are limited in their ability to support data entry, increase retrieval effort and promote generative use of target words. Ankidroid Flashcards is a program that seems to fill the research gap and to

tackle these limitations.

The other App, “LINE” is a prevalent messaging App with social networking features. LINE was used to enhance the use of Ankidroid Flashcards for vocabulary learning through sending daily SMS and to foster in-group interaction. Hopefully, the active interaction via LINE will add to their learning motivation.

In sum, this study tries to understand whether using LINE-enhanced Ankidroid Flashcards can influence learners’ intentions to study vocabulary. Furthermore, factors of using LINE-enhanced Ankidroid Flashcards that influence learners’ intentions to study vocabulary will be examined. Is it the recall design (including “active recall testing” and “spaced repetition system”) of Ankidroid Flashcards aided with LINE that influences learner intentions to study vocabulary? Is it the interaction provided by LINE groups that influences learner intentions to study vocabulary?

Vocabulary Learning Strategies

Vocabulary learning helps build basic foundation to successful language learning (Ahmad, 2012; Alemi & Tayebi, 2011). There are generally two types of vocabulary learning strategies: “incidental vocabulary learning” and “intentional vocabulary learning” (Wu, 2015). Incidental learning is defined as learning without the intention of doing it (Laufer & Hulstijn, 2001); Instead learning occurs through engagement in various communicative activities. In contrast, intentional learning is defined as deliberate learning which attempts to cram new vocabulary into memory (Alemi & Tayebi, 2011; Nation, 2001). Numerous studies were conducted yet the arguments were divergent. In some studies, incidental vocabulary learning was argued to favor vocabulary acquisition (Ahmad, 2012). Other researchers claimed that intentional vocabulary learning was more effective and could be a shortcut to gain increments in vocabulary (Nation, 2001).

Strategies for vocabulary learning are also identified by scholars (Gu, 2003; Nation, 2001; Schmitt & Schmitt, 1993). According to the ranking reported by 600 Japanese subjects in Schmitt and Schmitt’s (1993) research, “repetition” was recognized as the most helpful strategy for most of the learners. In addition, continuous learning over time was considered a useful strategy. This finding supported the earlier assumption that vocabulary learning was a cyclical process (Schmitt, 2008). This assumption proposed that the following 9 factors might facilitate vocabulary learning: (1) increased frequency