



The Influence of Vocabulary-Learning App Preferences Among Mandarin English Language Learners

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DOI: <https://doi.org/10.55248/gengpi.5.0624.1544>

ABSTRACT:

With the development of high technologies, mobile phones become popular in daily life. Many educators seized the opportunity and designed mobile learning apps. Compared with traditional language learning environment, mobile learning apps allow learners to use at anywhere and anytime. Also, these apps can provide immediate feedback and allow users to control their own learning paces. Many educators also believe that vocabulary-learning apps can take the advantages of mobile learning and can help users memorize words effectively. As vocabulary is considered as the foundation of language learning, it is important for English learners to acquire certain amount of English words. The reasons to take a close look at BAICIZHAN and SHANBEI is that these two apps are not only two of the most popular vocabulary learning apps in China, but also because they are different from many aspects, such as the way to present words and the hints which are used to recall words. It is interesting to see users' preference towards certain aspects of these two apps.

Keywords: Vocabulary-learning App, Mandarin English language learners, preferences

Introduction:

With the development of technologies, mobile learning is receiving more and more attentions nowadays. Basically, mobile learning means learning through any handheld or palmtop electronic devices (Traxler, 2005). Compared with traditional language learning settings, mobile learning has several advantages. First, it can enhance learners' autonomy. In other words, it can let users determine their own learning goals, select what they want to learn and assess their progress by themselves. Second, mobile learning apps can provide users immediate feedback (Afzali et al, 2017). Immediate feedback plays an important role in language learning as it can help language learners correct their mistakes and lead learners to the right way. Third, several language learning apps can allow users to share their learning experience with their friends. Thus, their learning paces can be seen others. Students are probably more motivated in learning when others could recognize their learning activities (Malone and Lepper 1987). Finally, compared with paper-based language teaching materials, mobile language teaching apps can upload more quickly without any costs of printing. \

As for vocabulary language learning apps, many educators believe that vocabulary-learning apps can help learners to memorize words effectively. Vocabulary has long been regarded as the foundation of language learning. There are several types of vocabulary learning apps; some use words alone while others use not only words, but also sounds, visual pictures and even videos to deep explain one word. When a human processes new information, two different channels are involved which is the auditory channel and visual channel (Lin and Yu, 2017). In other words, meaningful learning only appears when processing takes place in both channels. Also, several studies indicate that people learn better from words and pictures than from words alone.

This research takes a close look at two most popular vocabulary learning apps in China——BAICIZHAN and SHANBEI. Statistic shows that BAICIZHAN has been downloaded more than 33 million times while SHANBEI has been downloaded more than 20 million times. As SHANBEI and BAICIZHAN have relatively different design and layout and users' preferences can be influenced by the design and their own affective factors, it will be interesting to see users preference between the design of these two apps and the reason behind their choices.

The change of mobile learning environment

Nowadays, mobile phones are popular among people all over the world. Take the United States as an example; there were around 82% students in higher education owned cell phones in the year 2005 (Kvavik, 2005). In China, the mobile industry has grown rapidly since the year 2004, with more than 282 million users. According to the report, approximately 25% new mobile phone users are coming from China (Park et al, 2007). Thus, it seems like mobile phones are prevalent in China.

Users of iPhone or Android are facing thousands of apps that they can choose in the Application Store today. Among them, many apps are designed to assist learning and scholars indicate that the use of vocabulary learning apps in mobile phones has a positive effect in language learning. Thus, educators

become interested in this new area and thousands of mobile learning apps are developed in this way. This new trend leads learning environment to focus more on mobile learning.

However, at the very beginning of the use of mobile phones, there were many technical problems that prevented users to learn effectively through mobile phones. Chinnery (2006) indicated that mobile phones with small and low-resolution screens that influenced pictures display. It had a negative influence for language learning apps that used picture display for explaining the meaning of the word. Low quality screens were even unfriendly to text reading and hurt users' eyes at the same time. Mobile phones in the past were also lack of good audio quality, which affected audio playback and recordings. When users needed to listen to the pronunciation of words, poor audio quality might affect their learning and resulted in wrong pronunciation. User-unfriendly text typing-board and limited storage let mobile phone users sometimes felt inconvenient; especially some learning apps that required users to dictate new words. Sometimes, mobile phones were easily out of charge that prevented users from further using. Slow Internet connectivity also lowered users' pleasure while using. As Chinnery (2006) pointed out, a lot of language-learning apps were influenced by these technical issues.

A huge step was made in 2007 when iPhone got its advanced tech and solved several past issues, which made them become a game-changer in this field. Its' success also inspired other competitors and equally advanced mobile devices were invented. Screens with higher clarity become larger and almost all mobile phones today have touch screens, which are convenient for users to get on the Internet. Large keyboards are invented in order to make text typing easier. Many phones can also record, edit and replay voice or image with high quality. Most mobile phone users now can enjoy the fast 4G and Wi-Fi connections. Built-in storages are also largely improved and mobile devices become smaller and cheaper (Godwin-Jones, 2011). Today, using various mobile devices is a common activity especially for the young generation who grow up in the information era. All these universal features and trends in mobile area are helpful for the development of mobile learning activities, such as interactive language task, presentation of authentic content, and work completion. As language-learning apps benefit from these advanced technics, they show a significant emerging trend in the recent years.

Language learning through apps

Compared with traditional language learning settings, mobile language learning has its own advantages. First, mobile language learning apps can enhance learners' autonomy to some extent. It means that mobile learning apps can allow users to control their own learning pace. Compared to traditional language learning environment, learners who use mobile apps are no longer passive recipients (Looi et al., 2009). They can determine their learning goals, select what they want to learn and assess their progress by themselves. Educators believe that when students can handle their learning process, they can learn more (Ciampa, 2014). On the other hand, autonomy is related closely to learners' motivation and language-learning apps can motivate users from various aspects. According to Deci and Ryan (1985), self-determined learners' behaviour can be divided into two parts—intrinsic motivation and extrinsic motivation, from inside and outside. Intrinsic motivation in education refers to students learning behaviours that are evoked from interest and joy. As for the extrinsic motivations, it means that the outcome for the self-determined learner is extremely important.

Second, mobile learning apps can provide users more opportunities to learn with their individual learning strategies and give learners immediate feedback compared to traditional language learning environments. As class in China usually contains a large number of students, it is difficult for teacher to pay attention to each student. However, according to several scholars, each student needs a different pedagogy to acquire new knowledge (Godwin-Jones, 2011). In other words, each student needs to be treated individually according to his or her own learning competence. Some language learning apps even have an entry artificial exam to test user's overall level of English and design a learning plan that perfectly suits for the user.

Third, several vocabulary learning apps can allow users to upload their daily learning process on their social account so that everyone in their friend circles can recognize that he or she is learning. Malone and Lepper (1987) pointed out that students were probably more motivated in learning when others could recognize their learning activities. Mobile phones can help in enhancing students' motivation by forming communities for sharing learning experience and offering advices for others.

Furthermore, mobile learning can update immediately compared to paper-based learning materials (Yousafzai, et al., 2016). Thus, a new expression can appear on the app as soon as it creates and ready for users to learn. Also, in traditional classroom settings, some students may feel too nervous as they are afraid of making mistakes in front of others when teachers call upon them. Mobile learning devices can free those students from worry and anxiety and can even let shy students communicate with teachers freely.

The use of vocabulary learning apps

In the context of vocabulary learning, two effective methods can be used to memorize words, one is incidental learning and the other is intentional learning (Ulf, 2017). Incidental learning refers to learning through authentic contexts while intentional learning indicates learning through given contexts. These two methods relate closely to learners' level of proficiency. The former learning method usually appears in intermediate language learners and the latter one is largely used by beginning learners (Ulf, 2017). Some researchers suggest that intentional learning is ineffective and inefficient in acquiring a second language. Researches related to cognitive language learning suggested that the frequency and the quality of the processing activity could also influence the duration of words' memorizing. In other words, learners first encounter and notice new words through speaking, listening, reading and writing tasks. After that, only through purposed practice and revise, can a long lasting memory be facilitated. After enough exposure, activation and recognition become automatic, which is considered as a goal for second language learners (Patricia and Houser, 2005).

With the development of advanced technology and various language-learning apps, the use of vocabulary learning apps grow rapidly. Many scholars believe that vocabulary-learning apps can help learners to memorize words effectively and many empirical studies prove that mobile learning indeed

helps in memorizing words. For example, Wu (2014) tested 50 college students' vocabulary learning process. Those participants were divided into two groups, students in the experimental group used an app that designed specifically for this experiment, with words' pronunciation, context and other related information. The other group followed the traditional learning way as they only relied on textbooks to learn new words. The experimental group remembered 88.67 more words than the students in the control group at the end of the research, which was a significant difference.

There are several types of vocabulary learning apps, some use words alone while others use not only words, but also sounds, visual pictures and even together with videos to explain one word. This is considered as multimedia learning and is often adopted by developers who design mobile vocabulary learning apps. Lin and Yu (2017) suggested that two different channels were involved when a human processed new information, which were the auditory channel and visual channel. These two channels took charge of auditory input and visual input respectively. However, each channel had its own limitations. In other words, meaningful learning only appears when processing takes place in both channels and when a channel is overloaded, learning becomes ineffective. Thus, vocabulary-learning apps may help a lot in processing as it can easily combine these two channels together.

The differences between BAICIZHAN and SHANBEI

BAICIZHAN and SHANBEI are two popular vocabulary-learning apps among mandarin English language learners. BAICIZHAN provides audio sound and context for users when they first come across a new word. Users are asked to choose a picture that conveys the meaning according to the context. It can be regarded as contextual guessing. At the same time, BAICIZHAN also uses pictographs to stress the spelling of each word and give the hint of the meaning. Pictographs can also enhance learners' memory to some extent. When users make a mistake, BAICIZHAN will give an immediate feedback. It will also provide the root of the new word, together with prefix and suffix, as a hint and encourage users to find out the correct answer. For English learners, using roots to memorize words is very useful as English has many affixes that convey fixed meanings. It is beneficial for English learners to recognize these roots and affixes in order to infer meanings (Lee, 2015). At the same time, BAICIZHAN also provides context for a new word in a MV. Sometimes these videos even relate to culture and social background. Many studies agree that context plays an important role in helping readers understand a word and many language teachers and researchers also believe that it is better to present vocabulary within the context as it can assist learners to memorize for a relatively long duration (Qian, 2008).

As for the SHANBEI, the major difference from BAICIZHAN is that it only uses words alone. However, it provides learners an entry exam to test users' overall English levels. According to the result of the exam, SHANBEI plans the learning process individually. Thus, learners feel more self-controlled while they using this app. When users first come across a word, they are asked to choose whether they know this word or not. If they know the word, it will not be arranged to study again today. If they do not know the word, the app will provide them two or three opportunities to strengthen their memory, using both contextual explanation and meaning explanation. Furthermore, SHANBEI also creates a learning circle where users can share their learning experience. The app provides users who share a common goal, like passing CET4 or CET 6, getting high scores in IELTS or TOEFL, or improving English proficiency, to form a group and study together. Thus, the app itself serves as a medium for exchange ideas and for collaboration learning. Several studies indicated that a group of individual learners who share a common goal could facilitate performance through cooperation study (Ciampa, 2014; Johnson and Johnson, 2009).

Therefore, both vocabulary-learning apps have their own disadvantages. As BAICIZHAN uses pictures to present meanings, some meanings are hard to convey clearly merely through one picture. Thus, sometimes it may cause misunderstandings among learners. At the same time, although this app provides chances for users to revise several words every time when they start to learn new words, it still cannot guarantee learners recognize each word. As for SHANBEI, it is difficult for users to learn leisurely because it only includes words alone and users need to concentrate on learning. Both apps lack of spelling system that makes users hard to memorize spellings. There are some advertisements cut in while using, which influence the using experience.

The similarities between BAICIZHAN and SHANBEI

BAICIZHAN and SHANBEI can allow users to share their learning records by their social accounts. Thus, their friends can recognize that they are using apps to learn English. According to the intrinsic motivation raised by Malone and Lepper (1987), learners enjoyed sharing their effects and achievements and appreciated by others. In other words, learners will be motivated and more engaged in learning activity as their results are visible to other people. It is important for learners to have positive feelings towards their learning activities in order to create motivations for continue learning. Thus, through sharing the achievements on their social accounts via BAICIZHAN and SHANBEI, users can gain their sense of satisfaction.

Furthermore, BAICIZHAN and SHANBEI all involve interactive system as users are asked to tap on their mobile screens in order to continue studying. Interactive activities in learning involve interactions between students, interactions with teaching material and with the teachers (Evans and Gibbons, 2007). The study conducted by Evans and Gibbons showed that effective interactions in studying have a positive effect on learning outcome. 33 participants who were undergraduates took part in this experiment and they were divided into two groups randomly. Both of these two groups were asked to describe 12 stages about how a bicycle pumps works after learning. One group used three forms of interactivity in learning. They could control their learning paces, answer self-assessment questions and take part in a simulation activity. However, the other group could not control their learning. The results indicated that participants who used interactive system performed better than those who did not use, as they scored 2.5 (out of 6) compared to the other group that scored 1.8(out of 6). Therefore, interactive system is essential in a vocabulary learning application.

Methodology:

Quantitative data was collected through questionnaires and qualitative data was collected through interviews in this study. Questionnaires were distributed both through emails and through hard copies. Two questionnaires with the same statements were sent to the participants to collect their preferences between BAICIZHAN and SHANBEI respectively. Participants were asked to sign for the consent form and they had the right whether or not to answer the questions. A total of 54 questionnaires were distributed and all of them were collected. The follow-up interview was conducted after data collection. Interviewees were randomly selected from previous participant group, except for those who reported that they used these apps less than 1 year.

As this research aims to investigate users' preference about these two apps, attitudinal questions are used in order to explore what people think. Attitudinal questions include participants' attitudes, interests and values, which are difficult to be expressed through actual words (Dornyei, 2007). Furthermore, it is difficult to describe the preference degree in the actual words. However, the actual words indeed make a difference in measuring respondents' preference (Dornyei, 2007). Thus, multi-item scales is adopted and used in the questionnaire in this research. 5-point scale is used to express participants' attitudes towards these two apps (with "5" representing strongly agree while "1" corresponding with strongly disagree) according to 21 descriptive sentences. Hence, slightly difference can be reflected through the ranking scales. The questionnaire was designed largely based on a previous study by Wang (2011). Wang (2011) designed a vocabulary-learning app and intended to explore students' attitudes towards this app. She used questionnaires with scale ranking to test users' attitudes.

This research intends to test four factors towards these two apps: users' willingness in using these apps (statement1&2), users' affective factors toward these apps (statement3, statement4, statement5&15), users' active use of these apps (statement10&11) and users' motivation in using these apps (statement6, statement7, statement8, statement9, statement12, statement13&14). Statement12, statement13 and statement14 are related to apps themselves and intended to find out the relationship between users' preference and the design of these apps (See TABLE1 below). As users are not forced to use these two apps, motivation plays an important role in using and it is also related closely to learner autonomy (Chen et al. 2010). The divisions of these four factors are based on Wang's questionnaire (2017). On the other hand, 5-point scale is used in the questionnaire, point 3 means there is no significant preference among participants.

TABLE1: The questionnaire of users' attitude toward the app

Items	Descriptions
1	I have more opportunities to learn English by using this app.
2	It is easy to use this app.
3	It makes me happy when I use this app.
4	It makes me feel relaxed when I use this app.
5	I feel satisfied with this app.
6	I am aware of learning when I use this app.
7	I feel I can control my learning pace.
8	I can see I am making progress.
9	I enjoy sharing my learning experience with friends.
10	I would plan some time to use this app every day.
11	I am free to use it anywhere.
12	The immediate feedback system is helpful.
13	I like the format of presenting words.
13 (1)	I like words presenting with both pictures and sounds.
13 (2)	I enjoy guessing meanings from the given contexts.
13 (3)	I like words presenting with translations alone.
14	The way of giving hint is helpful.
14 (1)	All hints are useful to me.
14 (2)	I find the hints present with word roots are helpful.
14 (3)	I find the hints present with contexts are helpful.
15	I am satisfied with the way it organizes my progress.

In order to further explore participants' motivations and attitudes, a follow-up interview was used in this study. The design of the questions in the interview was largely based on the analysis of questionnaires. Compared with open-ended questions, interviews can help to product more in-depth data (Dornyei,

2007). Also, it is more flexible as interviews can allow further explanations according to interviewees' respondent and interviewees do not need to word carefully about their answers. A structured interview was adopted as it was commonly used to ensure focusing on the target topic area and it can provide more information about certain phenomenon (Dornyei, 2007). Thus, it can explain the preferences in a more specific way.

Participants

27 Chinese learners of English were included in the questionnaire survey and they are mandarin speakers. They all study in English-speaking countries, such as England and Australia. Their IELTS ranged from 5.5 to 7.5 and nearly half of them (13 participants) got 6.5 in IELTS. The mean of their IELTS score is about 6.6 (SD=0.411722807). The proficiency of English may matter in the way of using language apps, as Wang (2017) indicated that students who had low English proficiency might feel frustrated and difficult to use mobile learning apps that were presented in English.

Most participants reported that they have studied English for more than 10 years. However, the duration of the usage about these apps are varied among participants. One participant reported that she used these apps for 7 years while several other participants indicated that they seldom used these apps for learning. Those participants who seldom used these two apps should be taken carefully and should be excluded from further follow-up interview, as they may not familiar with these two apps. Among these 27 participants, 2 of them who have never used BAICIZHAN before and 4 of them have never used SHANBEI before.

Objective:

1. To assess the preference among these two vocabulary learning apps.
2. To explore the reasons of the preference among these two vocabulary learning apps.

Results

Apart from 2 participants who have never used BAICIZHAN and 4 participants who have never used SHANBEI before, the proficiency of English (based on the IELTS score) and their preference towards BAICIZHAN and SHANBEI (based on the mean score of each sentence) are presented in Table 2 below. It can be seen from the table that low-proficiency participants (scored 5.5-6) probably like to use SHANBEI more than BAICIZHAN while high-proficiency participants (scored 7) did not show significant preference towards these two apps. On the other hand, those participants who scored 6.5 in IELTS seemed to be fond of BAICIZHAN rather than SHANBEI.

TABLE 2: IELTS score and preference towards BAICIZHAN and SHANBEI

IELTS	SHANBEI	BAICIZHAN	No preference
5.5-6	2	1	
6.5	1	9	
7	3	4	1

The results of the mean score of each statement in the questionnaire show that BAICIZHAN receives an average score of 3.5 while SHANBEI gets an average score of 3.24. Furthermore, as statement13 (1), statement13 (2), statement13 (3) and statement14 (1), statement14 (2), statement14 (3) represent the main distinguish features between these apps. Judging from the statistics, statement 2 (of BAICIZHAN) scored highly, and then followed by statement 7 (of BAICIZHAN), statement 2 (of SHANBEI), statement 6 (of SHANBEI) and statement 11 (of BAICIZHAN). Statement 10 (SHANBEI) scored the lowest and then followed by statement 4(of SHANBEI), statement 10 (of BAICIZHAN) and statement 5(of SHANBEI). As the ranking scale is from 1 (strongly disagree) to 5 (strongly agree), participants who gave a score of 3 indicates he or she has no preference or neither agree nor disagree about this question. Thus, the score of 3 has been set up as the test value in analysing participants' preference here. Judging from the results, participants indicate that it is easy to use these two apps (statement 2), especially BAICIZHAN as more participants scored over 3.

Except for the common preferences towards these two apps, participants also report different attitudes towards BAICIZHAN and SHANBEI. According to the statistics, participants indicate that they are aware of learning while using SHANBEI (statement 6 of SHANBEI). Participants also show that they feel free in using BAICIZHAN compared to SHANBEI (statement 11 of BAICIZHAN). Furthermore, participants indicate that they feel they can control their learning paces in BAICIZHAN (statement 7 of BAICIZHAN) as well. On the other hand, compared to BAICIZHAN (statement 10 of BAICIZHAN), participants seem to be less willing to plan some time in using SHANBEI (statement 10 of SHANBEI). Also, participants report that they relatively do not feel relaxed when they use SHANBEI and they are not satisfied with this app.

Discussion

It seems that both low-proficiency (IELTS between 5.5-6) and high-proficiency (IELTS 7) English learners prefer SHANBEI. As mentioned earlier, SHANBEI only provides users with words and contexts while learning. In the follow-up interview in this study, participants indicated that new vocabulary

only presented with words made them feel more concentrated and realized that they were learning something while using. Furthermore, most low-proficiency participants reported that they usually used these vocabulary-learning apps before exams. Thus, they were strongly motivated and they needed to be focus on learning and SHANBEI may be appropriate for them. Participants who scored 6.5 in the IELTS seemed to prefer BAICIZHAN rather than SHANBEI. As BAICIZHAN provides pictures and makes users feel more relax in using. For those learners, enlarging their vocabulary size was not an urgent thing. They learnt for fun. Thus, BAICIZHAN seemed to be more popular among those participants.

Participants indicated that they were easy to use these two apps. It is related to users' willingness in using these two apps from the objective aspect. As statement 1(I have more opportunities to learn English by using this app) relates to users' willingness from the subjective condition, it can be seen that although users do not often use these apps to learn English, they still commit that these two apps are easy to use. Participants listed two reasons in the follow-up interview to explain why they think it was easy to use these apps. First, it may because of the advanced technology. Mobile phones become smaller and cheaper, some current functions in mobile phones even exceed laptops to some extent (Godwin-Jones, 2011). Also, many mobile phones nowadays have touch screens, which makes users easier to conduct. On the other side, as mobile phones are considered as one of the everyday devices in people's daily life and users are familiar with this electronic devices as they encounter it everyday (Kukulka-Hulme and Shield, 2008), it is easier for users to use. Second, mobile learning can allow users to learn at anywhere and anytime. When compared with traditional language learning settings, mobile learning has its own advantage. It provides convenience in learning space, which means that users can learn at anywhere (Shippee and Keengwe, 2014). When compared with desktops or laptops, mobile phones are cheaper and not constrained by a hard line connection (Shippee and Keengwe, 2014), which means that users can learn at anytime. In other words, learners feel easy to use BAICIZHAN and SHANBEI is because they can be downloaded on a mobile phone that contains high-tech and can be used at anytime and anywhere.

Participants also indicated that they were aware of learning when using SHANBEI. It may because it provides immediate feedback system and revision system every time when users begin to learn new words. Although participants did not show a significant preference towards statement 12 (Statement12: The immediate feedback system is helpful), 17 out of 27 participants still gave a credit higher or equals to 3. Immediate feedback plays an important role in language learning because learners may acquire false information and these errors may be consolidated if learners do not get corrected from the beginning (Nakata, 2015). However, in traditional classroom settings, especially in China where a classroom contains many students, it is difficult for teachers to focus on each student and correct their errors.

On the other side, users' awareness of learning reflects their intrinsic motivation to some extent. Intrinsic motivation is related to learners' interest and joy (Deci and Ryan 1985). After learners tap an answer, both apps will give immediate feedback. When users come across the word that he or she learnt yesterday and tap the right answers in the revision exercises, or when they recognize the word in a reading material, learners will get a sense of achievement and feel like that they are learning something. The reason why intrinsic motivation is emphasized here is because users are not forced to use these two apps while learning and the way they use language-learning apps is largely relied on their own autonomy. O' Reilly (2014) found that learners' autonomy were strongly related to their intrinsic motivation and also influenced learners' learning outcome. Thus, users' awareness of learning while using BAICIZHAN and SHANBEI has a positive effect on their learning outcome.

Participants reported that they felt they could control their learning paces while using BAICIZHAN. According to the follow-up interviews, participants state that they can choose what they want to learn at the very beginning when they enter the app. They also indicate that unlike traditional classroom settings that teachers and students are pushed by time limitation, BAICIZHAN gives them time to remember and think deep about new vocabularies. Furthermore, new words only will appear after users' tap mobile phone screens. Interaction between users and apps also plays an important role in letting users feel that they can control their learning paces. Some educators believe that when learners feel that they can control their learning pace, they will learn more (Mayer, 2005 cited in Ciampa, 2014). As when learners feel that they are in charge of their own learning, they will take more responsibility to themselves (Horton, 2002). Several research also show that learners not only find the learning materials more interesting but also perform better and have deep understanding of the texts when they can control their pace of learning. Mayer and Chandler (2001) further found that learners who even got minimal control, such as clicking to decide when to move on to the next section, still outperformed than those learners who could not control their learning paces. Meanwhile, as both BACIZHAN and SHANBEI ask users to tap before entering a new word, users feel that they can control their learning paces.

According to the statistics, Participants reported that they felt free to use BAICIZHAN compared to SHANBEI. It may because that BACIZHAN uses not only words and sounds, but also pictures to illustrate a new word. However, SHANBEI only uses words and sounds to explain a new word. Furthermore, among 25 participants who used BAICIZHAN, 22 of them gave a credit equals or higher than 3 towards Statement 13(1). (I like words presenting with both pictures and sounds.) On the other hand, among 23 participants who used SHANBEI, 16 of them gave a credit equals or lower than 3 towards Statement 13(3). (I like words presenting with translations alone.). Compared with BAICIZHAN that use both colourful pictures and words to present words, SHANBEI only uses words alone. Participants in the follow-up interview reported that they felt they were more concentrated on learning while using SHANBEI as SHANBEI only provides words explanations with merely words. The reason may because that it takes longer for human brains to process words than images (Demir, 2017) and thus users need time to process and analyse information. It has been frequently tested that whether pictures help in language acquisition or not. According to several researches, pictures can improve learners' understanding better than pure description in words (Carpenter and Olson, 2012). It is one of the most common findings that pictures can be remembered in a longer time than merely words alone (Demir, 2017). This may because human brain processes images quicker than processing words. Also, impressive images can even leave deep impressions among learners and they can work as stimulations when learners encounter the corresponding words in daily life.

On the other hand, users seemed to learn by these two apps by chance, as they suggested that they would not plan some time to use these two app everyday, especially for SHANBEI. Also, users indicated that they were not satisfied with SHANBEI according to statement 5 and they did not feel relaxed when they use SHANBEI (statement 4). As statement 10, statement 5 and statement 4 are related to users' affective factor towards these two apps, it is likely

that users do not have a positive attitude towards these language-learning apps, especially for SHANBEI. The reason may be because that BAICIZHAN uses pictures to illustrate words while SHANBEI only provides words. Pictures can evoke a sense of overconfidence and make learners easier to process. Meanwhile, the ease of processing can facilitate accurate memory predictions (Carpenter and Olson, 2012). Compared to merely word-to-word translations, words explain by pictures makes learner find language learning more interesting and enjoyable (Baralaei and Najmabadi, 2015). In other words, language learning with visual pictures makes learners feel relax, especially some pictures present on BAICIZHAN are funny in order to make users laugh. Thus, compared with word to word explanations, new vocabularies explains though visual images can make users feel free in using vocabulary learning apps.

Conclusion

This paper intended to investigate users' preference towards vocabulary learning apps through two already-designed apps —BAICIZHAN and SHANBEI among Chinese English language learners. Questionnaires and interviews were used to collect general attitudes and deep explored the reasons about the preference towards these apps. Both apps have their own advantages according to the participants. BAICIZAHN shows its advantage in words presenting while SHANBEI has its' strength in concentrating learning. Learners' proficiency of English and their motivation towards learning likely affect their choice of vocabulary-learning apps. Learners with low-proficiency in English and more urgent in passing exams prefer language-learning apps without pictures in order to concentrate on learning. On the contrary, learners who do not urgent in passing exams seemed prefer language-learning apps with pictures in order to learn with joy. Furthermore, users seemed to be willing to use vocabulary-learning apps. However, it seemed that they did not have a positive attitude towards these vocabulary-learning apps, especially for the app that only illustrates new vocabularies through merely words.

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