University Students Using Mobile Application as Self-Directed Learning Tool for Learning Chinese

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Abstract. This research aims to examine about using mobile application as self-directed learning tool for learning Chinese. We chose Manga-Mandarin mobile application as the learning source. The participants were Bina Nusantara University students from different majors and joined in this research voluntarily. As the facilitators we provided the learning plan in three weeks length of study. We interviewed the participants to gather the data about how the process of their self-directed learning and their experiences using the mobile application. We found out that all of the participants had completed the self-directed learning process and most of the participants were aligned with Garrison self-directed learning three dimensions, self-management, self-monitoring, and motivation. Most of the participants also felt using mobile application to self-learning Chinese was a valuable experience.

1 Introduction

Now days smartphones have become the focus of attention concerning mobile learning, various applications have been developed for promoting language learning. Mobile learning research shows that the use of cell phones and their applications continues to be beneficial for learning the foreign language, apps demonstrate a lot of potential to support language learning; there is significant acceptance of mobile learning among language learners, especially in terms of usefulness, efficiency, interactivity, and convenience [1]. Some studies show how language mobile apps are becoming prominent tools for self-learners. Librarians and employees of academic libraries have used language-learning apps [2]. The existing educational mobile applications, which could be also exploited in learning English by elderly [3]; Learners use the mobile apps to learn the language skills and focus more on learning them both inside and outside the classroom [4]. Learning Chinese via smartphone application has influenced their language performance; task accomplishment and personal study positively. The students also willing to continue using smartphones in their study[5].

Malcolm S. Knowles defined SDL as, “A process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes ”[6]. Self-directed learning dimensions according Candy included personal autonomy, self-management in learning, the independent pursuit of learning and the learner control of instruction [7]. And Garrison presents a comprehensive theoretical approach that integrates cognitive-motivational and social aspects in educational settings through three dimensions. The first dimension, self-management, is concerned with the control of task issues associated with the learning process and the management resources and support; the second dimension, self-monitoring, is the process whereby the learner takes responsibility for the construction of personal meaning, that is, integrating new ideas and concepts with previous knowledge; the third dimension, motivation, is needed for the initiation and maintenance of self-directed effort [8]. The concepts of SDL are based on adult learning principles and experiential learning fostering skills for lifelong learning [9]. The mobile apps can promote self-regulated learning and the learners think the use of apps can be a useful addition to the classroom activities along with other activities as they help learners to monitor their learning[10]. In a SDL context, Chinese old adults persisted in learning English using mobile apps for 17 weeks and increased their vocabulary significantly [11].

Speaking is the most important skill for communicating ideas, intentions, thoughts, and feelings to others through the use of verbal and nonverbal images in order for the message to be clearly delivered and well understood by listeners [12]. All of second language learners have the same issues, their ability to communicate in foreign language still limited, they don’t have opportunity to speak or communicate in targeted language once they leave the classroom. They still make mistake in pronunciation, words of stress and intonation, difficulty to distinguish similar sounds, vocabulary or grammar. This paper focus on learning speaking Chinese language, and Chinese pronunciation is quite different and...
complicated compared to alphabetic languages. Hence, the students need to learn more by themselves to become fluent and smart phone is the potential tool for it.

In this paper, we tried to explore the use of mobile applications to support the learning of Chinese language especially in speaking area. Our research purpose is how the learners use the mobile applications (Manga-Mandarin) as a tool to learn speaking Chinese language. M-Mandarin mobile applications have some unique features for speaking. The platform uses comics as a way to learn Chinese and the stories are written in conversational style; the contents marked with a label suitable with Chinese Proficiency Test or HSK (Hanyu Shuiping Kaoshi) from level 0 up to level 6; the platform also provide audio with Pinyin (alphabet to pronounce Chinese) and the translations. And for practice the pronunciation, the application has dubbing feature to record the lines. Therefore, Manga-Mandarin was chosen as learners self-directed learning tool in this research.

2 Method

This research used qualitative method with online interviews using zoom platform to obtain the data from the participants. We chose 10 students (volunteers) from different major at Bina Nusantara University who never learned Chinese before to join the research. We taught them how to use the application and gave them three weeks self-learning plan. We only acted as facilitators in case they need help about the application. All the materials were level 1 Chinese Elementary and because of the limitation, we only able to choose the free access material (Table 1). The participants can choose two of their best records and sent the link to us.

<table>
<thead>
<tr>
<th>No</th>
<th>Time</th>
<th>Material</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>May 4-6 2022</td>
<td>Elementary Chinese I Text 1 &amp; 3</td>
<td>Text 1: How do you do? Text 3: Are You Busy?</td>
</tr>
<tr>
<td>2</td>
<td>May 7-10 2022</td>
<td>Elementary Chinese I Text 8</td>
<td>Birthday</td>
</tr>
<tr>
<td>3</td>
<td>May 11-14 2022</td>
<td>Elementary Chinese 2 Text 1 &amp; 2</td>
<td>Text 1: Is it far from here? Text 3: How to get there?</td>
</tr>
<tr>
<td>4</td>
<td>May 15-17 2022</td>
<td>Elementary Chinese 2 Text 14</td>
<td>Go to the airport</td>
</tr>
<tr>
<td>5</td>
<td>May 18-20 2022</td>
<td>Elementary Chinese 2 Text 17</td>
<td>Cheers to friendship</td>
</tr>
<tr>
<td>6</td>
<td>May 21-24 2022</td>
<td>Mike in China Text 5</td>
<td>I love Cola</td>
</tr>
<tr>
<td>7</td>
<td>June 5-7 2022</td>
<td>Interviews</td>
<td>Learning process and experience</td>
</tr>
</tbody>
</table>

For speaking assessment range, we divided into excellent (90-100), very good (80-89), good (70-79), fair (60-69) and unsatisfactory (59-fewer).

3 Discussion and Result

3.1 Using Manga-Mandarin Application as Self-directed Learning Speaking Chinese Tool

Manga-Mandarin features are divided into vocabulary, text, grammar, dubbing, video and practice. The materials this research mostly don’t have video and practice feature because it is still very basic. The learners will learn the vocabularies which is provided with how to pronounce, an audio for each word and also the meaning. After finishing the vocabulary, the participants will learn the dialogue (Figure 1 & Figure 2). The grammar part contains not only grammar explanations but also has many other examples includes sentences and dialogue. But in our research, we only focused on how participants learn to speak Chinese, therefore the grammar part is only additional. After the learning part was finished, the participants can try dubbing feature to record the dialogue.
words. They found it was very difficult to memorize without reviewing the materials.

Most of the participants read the words and texts for reviewing. These participants maintained high motivation and continue their study every day. These participants can be assumed as successful self-learners, they had been very responsible to do self-management and self-monitoring in their learning process [8]. Few participants did not review much because they lack of confidence, one of the participants (PA) mentioned when she tried to pronounce the Chinese, she pronounced it wrong for many times, so she became impatient and lose motivation to continue reviewing more. And other participant (JG), he learns and review the material from the first week for 20 minutes but after the second week, his motivation decreased because he felt difficult to memorize too many new words. This finding also inclined to one of two dimensions of self-directed learning that mentioned if the learners lack appropriate skills or self-confidence for self-directed learning, the opportunity to be autonomous is purposeless [7]. (MW) mentioned he did review every material, but he did not interesting in learning applications, he thought it was better to learn directly from a tutor, the apps can be used only for additional. He felt unmotivated to continue to learn without any guidance from the professional. Without a doubt, motivations has an important role to play in life-learning process, motivation is the force that drives and encourages learners to approach unfamiliar and also based on interest the need to learn the second language itself [13], (MW) think he did not need to learn the language at the moment.

In the process of learning speaking Chinese, the participants found it was difficult to differentiate some pronunciations in Chinese, such as:

MRH: sh [ʃ] and s [s] for the word sheng and; RYT: ie /je/ and ié /iɛ/ for the word xue or xie.

JG and VB, they felt difficult to distinguish aspirational consonants or non-aspiring consonants such as b [p] and p [pʰ] or j [tɕ] and q [tɕʰ]. AAW, MRH, and AH mentioned they had difficulty distinguishing second and third tones. Chinese language has four tones and the different tones will influence the meaning of the word or the sentence.

The participants mentioned the difficulty to pronounce Chinese sounds because the pronunciation was so different compare to Indonesian, they did not know how to pronounce it correctly, they never received any training before, and they only learned it from listening to the audio from the apps. It was hard to think in target language, they felt their mother tongues (Indonesian) influence them, made them want to pronounce it in Indonesian although they knew it was wrong. The only way to practice it only by listening to the audio and repeat it many times. Although they did the dubbing, but the dubbing was not auto graded, so they did not get any feedback for knowing their pronunciation errors.

To increase the learners’ interest in learning, Manga-Mandarin application provides dubbing feature for practicing speaking and pronunciation. Dubbing is the process of replacing the sound in a “soundtrack” to correct any mistakes and record the dialogue. Dubbing function is usually done to adjust the conversation in the film with language that can be more easily accepted by the audience who witnessed it [14]. In this research, because it was not a video, but it was a digital comic, so the dubbing is more similar to a role play or voiceover put into a dialogue. The content of dubbing feature includes the Chinese characters with the Pinyin (how to pronounce Chinese in alphabet) and also an audio to demonstrate the correct pronunciation. Therefore, the participants can practice first before recording each line of the dialogue. The feature also provides visual stimulation by adding some illustrations in dubbing feature (Figure 3). The dubbing feature has unlimited attempts hence the participants can practice more. They also can send the link of their recordings to friends or social media. All the participants were very motivated to use the dubbing feature to practice their speaking skills.

![Image](320x424 to 501x558)

**Fig. 3. M-Mandarin dubbing feature**

The participants sent us the record of their dubbing. We graded but we only keep it and did not give them a feedback. From ten participants, only one participant fit into very good category, three participants were good, one student was fair, and four students were unsatisfactory. These participants were making errors especially in Chinese pronunciation final ü /y/; final -i [i] /i/ when the consonant is zh, ch, sh; final -i [i] /i/ when the consonant is z, c, s. Errors of Chinese aspiration initial p, t, k, palatal initial j, q, x and initial retroflex zh, ch, sh, r. The participants often mispronounce in between these initials. Our research did not analyse further for the errors of the pronunciation in details.

### 3.2 The Experience of Using Manga-Mandarin as Self-Directed Learning Tool

According most of the participants, using Manga-Mandarin to learn Chinese was a very fun experience. Most of the participants said that using mobile application was very flexible, they can study anywhere because its mobile, the features of the application are quite complete and guide them step by step from the easiest the words first then the text and the last was the grammar part. After finished learning, they can go to dubbing and practice feature. Most of the participants love to use dubbing feature to improve their speaking skills.

KM. AAW and MV mentioned that when using the application, she learned a lot of new Chinese words, her
listening ability, reading Chinese character was improved. Although she could speak simple sentence but still could not speak in real conversation. With many examples and for each word or sentence has its audio, it helped her to improve how to pronounce Chinese correctly.

AH said that she liked the visual of the comic style, she felt motivated to learn more because of the comic style, she started to get used to of Chinese sounds, and learned much about Chinese grammar. She also tried to use the words which she had learned. She found out that some Chinese sentence structures are similar with Indonesian, and with the examples from the apps, she managed to memorize some sentences such as, ta zai jia (he is at home) or xianzai ji dian? (what time is now?). Although she only able to speak simple sentence or words, but she felt happy that her Chinese was improved only in a short time learning period.

RYT thought it was very good that Manga-Mandarin has free access materials, although free materials were limited but for the beginners like her, it was more than enough, and all the features were easy to use. She said “It was confusing when first time use the application, but after trying few times, I was get used to it. I also like the review feature, in review feature, it recorded every progress of my learning, so I knew how many words or sentences I had been studied, and how many comic that I have been read, its automatically recorded my progress, I was happy with it.”

MRH said “Using the apps made me able to say few simple words such as ni hao, gan bei, kafei, jichang, yuan bu yuan, ni qu nali, introducing myself and also telling time in Chinese. I think my Chinese improved gradually in three weeks and I feel more confidence to learn Chinese in the future. Besides the material that was given, I also tried some culture topics such as Lantern Festival and Mid-Autumn Festival, now I know some words about these festivals.”

Most of the participants agreed by using mobile application to learn Chinese did not need to depend on teacher so it was more flexible, but the recording could not be auto graded, they could not get a proper feedback, they did not know how to fix their errors. Self-directed learning is also lack of interaction with others or tutor, unless they can find a friend to study together, they only can read dialogue by themselves, therefore, it made them feel bored. Besides, the application only provides limited free access, for further learning, they need to pay and have to be self-motivated and self-disciplined if they still want to continue to use the application for self-learning. And they found out, it was very difficult to master a foreign language without a tutor, the application was suitable only for introduction to the target language or use as an additional tool.

4 Conclusion

This study indicates that mobile application especially Manga-Mandarin can play significant role in supporting many people who want to self-learning Chinese. The 10 participants with no basic of Chinese had completed their three weeks self-directed learning with Manga-Mandarin mobile application. From the participants learning process, we found out that most of the participants had completed self-learning according to the learning plan, they had learned and had reviewed all of the materials. The participants were able to manage their time doing routine review every day. They were aware which part of the learning they were still not good at it. Some of the participants learned more than the materials in our learning plan. Some were also tried to apply their new skill in daily life. From Garrison three dimensions of self-directed learning, we can conclude that most of the participants were able to do self-management, self-monitoring and self-motivated in learning Chinese using Manga-Mandarin mobile application. Few participants were self-monitoring about what materials they did not understand and also made time to learn all the materials completely, but they realized that their skill did not improve because they had low motivation towards the language and the application, hence they did not review the materials, they only learned it once.

From the participants experience of using the application as self-learning tool, we can conclude most of the participants thought that Manga-Mandarin were able to become one of self-directed learning source especially in learning how to speak. The application is provided with audio and dubbing feature to practice precise pronunciation. The application also has a comic picture which can stimulate the participants to keep their interest in learning. Most of the participants think it was a valuable and fun experience to self-learning Chinese with the help of Manga-Mandarin application.

This research is based on voluntary of the participants, therefore, we did not give the participants as a task to complete. In future research, we may consider to implementing SDL to larger scope of students, guide the students to refine their learning, stimulate the students to keep motivated, evaluate the learning outcomes and give more feedbacks.

References

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