Comic Strip Project in the M-Comic Application for Mandarin Vocabulary Learning

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Abstract. How to arrange sentences and reading texts often come from textbooks. The example sentences and text provided only display the meaning and position in the sentence. The procedures for using it grammatically in sentences are often unclear. The context of the conversation used as an example sentence often does not relate directly to the daily lives of students. So that students have difficulty in composing sentences with the vocabulary learned. This study aims to overcome difficulties in learning Mandarin vocabulary through the comic strip project in the M-Comic application. Through a survey method of 48 students, first-year Chinese literature, there are three difficulties for students in learning vocabulary, namely, the meaning of words, how to use, and the context of use in conversation. Therefore, the author sparked the idea of M-Comic as a new learning media. M-Comic requires a story update in each period. The author involved 24 students who were divided into 8 groups to create comic content following the instructor's direction. The survey results show students can apply learning by doing, by collaborating with fellow group members, together creating their conversation context that is closely related to daily life, to help mastering Mandarin vocabulary in more exciting way.

1. Introduction
A morpheme is the smallest combination of phonetics and semantics, and the smallest meaningful language unit[1]. However, in language learning, mastery of vocabulary is very important[2]. When people learn language without grammar, they would have very little to be conveyed, and when people learn language without vocabulary, they would have nothing to be conveyed[3]. Thus, the mastery of vocabulary in learning Mandarin plays an important role[4]. Learning media for vocabulary are generally sourced from language courses textbooks and dictionaries, both in the form of hardcopy and digital (mobile apps). GerakanLiterasiNasional(National Literacy Movement) is a movement launched by the government to increase the literacy of Indonesian children who are very far behind compared to other developing countries. Learning in schools and universities are asked to follow this government movement. So, teachers can also use supplementary reading material.
To increase students' vocabulary collection, teachers take material from outside due to the limitations of course books to support vocabulary learning [5]. Students who like to read comics will have twice the vocabulary mastery than children who don't like to read comics. A teacher can use the right comics to motivate students to improve their reading skills [6]. Reading comics does not inhibit other types of reading, and in fact, that facilitates heavier reading [7]. Comics serve as entertainment and can engage student attention [8]. By reading comics, words, and images that are interconnected and complement each other, even through pictures alone, the storyline can be known [9]. Learning English by using comic strips (pictorial reading) will be more effective compared to learning English using ordinary reading text media, and this has been proven to increase student vocabulary [10]. Moreover, the comic production activity assists low-proficiency EFL readers in improving their reading comprehension [11]. Comic strips can effectively increase reading comprehension for second language learners [12]. Comics also can motivate students to read, and it assists students in language learning [13]. Therefore, comics can become a new learning medium to help overcome difficulties in learning Mandarin vocabulary.

2. Methods
This study uses a survey method and was carried out twice. The first survey was aimed at 48 first-year students of Chinese literature at BINUS University who took Chinese Language 2. The questionnaire was designed to determine the difficulty of mastering and using Mandarin vocabulary. The questionnaire was divided into three question sections, namely, difficulty in understanding the meaning of vocabulary, the procedures for using vocabulary in sentences, and the context of using vocabulary in daily conversation. The questionnaire was distributed in the second week of March. After the data was processed, the researchers chose 24 students from respondents and were divided into 8 groups, each group under the guidance of the researcher, creating a storyline and comic strip drawing. Vocabulary material is taken from the important vocabulary in each chapter, equivalent to level 3 Chinese Proficiency Test (HSK). Then, conduct a second survey at the time of project collection (the second week of April) of 24 students involved in the project, to request responses and feedback from each group member.

3. Result and Discussion
3.1. Student Difficulties in Mandarin Vocabulary Learning
The results of the first survey of 48 respondents showed that the difficulty of students in learning Chinese vocabulary can be classified into 3, namely the meaning of vocabulary (12 respondents), use in sentences (42 respondents) and the context of their use in daily conversation (37 respondents). This research will focus on these three main difficulties. Figure 1 shows that the meaning of vocabulary and how it is used is the most frequently encountered difficulty in learning vocabulary. Through the survey results, it was also found that the causes of the three main difficulties in learning Chinese vocabulary were: (1) The existing learning material was incomplete and unclear; (2) The difference with Indonesian is very large; (3) Examples of sentences are not following the daily use of students.

As many as 38 respondents (79.2%) still rely on explanations by lecturers to learn vocabulary, but the survey also shows students have an awareness of independent learning, as many as 32 respondents (66.7%) watch video learning independently, 23 respondents (47.9%) read explanations from other learning media. Other learning media for learning vocabulary are still focused on material books, but 28 respondents (58.3%) rely more on Chinese language learning apps on their smartphones. Even though students already have material books and mobile apps to support learning Mandarin vocabulary, existing material tends to be written text which is often monotone and makes people get bored quickly, so that 36 respondents (76.6%) state that they understand the use of vocabulary better if it is made in the form of a pictorial story. The reasons also vary: (1) Displayed with pictures so it is easier to understand (2) Picture stories are entertaining, thereby reducing the burden of learning (3) The language used is closer to the daily lives of students. 43 respondents (89.6%) were happy and wanted to learn vocabulary if they were in the form of picture stories.

One way to overcome the 3 main problems of vocabulary learning is to pay attention to new forms of learning media and the content presented. Therefore, taking into account the results of the survey above which shows instructional media are entertaining, and the content will be better if adapted to the daily lives of students, researchers use a task-based language teaching approach, involving students to create M-Comic application content, with the hope that comic content can be adapted to the daily lives of students.

3.2. Student Responses in Making Comic Strips
The response of students to the comic strip making project was very good, this was demonstrated by the second survey of 24 students involved in the project. Figure 2 shows the comic strip making project can help students overcome problems in understanding the meaning of vocabulary, how to use vocabulary, and the context of use in daily conversation. Making comic strips as a project and presented digitally through the M-Comic application is still not enough to help students understand how to use vocabulary in a sentence. Students prefer the presentation of material with a combination of text and images. The researchers agree that the "Summary" feature will be displayed in the form of a mind map, where the combination of text and images is more interactive (see figure 3).

![Figure 3. Sample of Summary Display](image)

Also, the first survey showed that students like to learn independently by watching learning videos.
So that the comic content in the M-Comic application can utilize the auditory capabilities, the sound feature will be made separately between panels, and the markings on each panel function as raising the voice of the comic character talk (see figure 4). After evaluating the comic strip project that will be used as comic content in the M-Comic application, 21 respondents (87.5%) stated that they wanted to use it as a new vocabulary learning material.

Figure 4 Samples of the comic content display

4. Conclusion
Mandarin is an extremely complicated language in the world, and second language learners of Mandarin Chinese must contend with numerous difficulties on the journey to SLA[14]. Learning Mandarin vocabulary often encounters many difficulties. This is not just because there is a big difference with the Indonesian language, but also a lack of understanding of how to use it in sentences, as well as the context of use in daily conversation. Learning materials used such as textbooks and dictionaries in mobile apps are presented in the form of text, which often does not increase students' interest in reading. The present learning model is more inclined to student-centered learning, where the learning model is oriented towards learning by doing. Teachers should be able to utilize student awareness to do self-learning, by using project-based learning models, by developing critical attitudes and increasing collaboration in learning.

Comics offer a creative alternative for teaching that motivates and engages struggling and reluctant readers[15]. The M-Comic application is a new medium for entertaining vocabulary learning, which can increase students' interest in reading so that it can support Mandarin vocabulary learning. Through the first trial, the M-Comic application features do not stop developing because the application is made based on student needs. To be by the needs and contents of the material closely related to the daily lives of students, the M-Comic content should be continuously updated. Therefore, M-Comic is fitting for a public sharing, where users can also participate to upload content, which of course is under the control of the application developer.

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Acknowledgment

This work is supported by Research and Technology Transfer Office, Bina Nusantara University as a part of Bina Nusantara University’s International Research Grant entitled “M-Comic Application to Support Mandarin Vocabulary Learning” with contract number: No.026/VR.RTT/IV/2020 and contract date: 6 April 2020.