Learning Numerics Words Through Online Games Learning

Y Ying\(^1\)\(^\text{a}\), Jureynolds\(^1\)

\(^1\)Chinese Department, Faculty of Humanities, Bina Nusantara University, Jakarta, Indonesia, 11480
E-mail: yi_ying@binus.edu

Abstract – Mandarin numeric words are an important part in learning Mandarin. Mandarin numeric words reflect the types of objects that they follow. Chinese literature students study nouns for four years because sentence construction cannot be separated from nouns. Unfortunately, not all students consider nouns important so that up to the junior year, there are still some errors in using nouns. This research uses questionnaire distribution to 38 sophomore students of Chinese literature who have studied Mandarin for 2 years. Through this research, as many as 89.47% of students say mastery of Mandarin numeric words are important. As many as 81.57% of students feel learning Mandarin numeric words is difficult due to the numbers or words in Mandarin numeric words. As many as 71.05% of students think that the teaching methods of using Mandarin numeric words by lecturers are good. As many as 55.26% of respondents answer that they often doing exercises since this could help them in learning Mandarin numeric words. From the results of this study, in order to master Mandarin numeric words, students are expected to be given task of summarizing Mandarin numeric words in each lesson and the lecturer also provides the exercises. Exercises kata bantu bilangan bisa dilakukan dengan mendesign online games learning karena pembelajaran online sudah menjadi bagian dalam kehidupan mahasiswa dan pembelajaran melalui games akan memudahkan mahasiswa untuk belajar.

1. Introduction

Language is one of the most important tools in shaping communication in human life. With language, humans can interact with each other. Language is a bridge that bridges communication between humans. By paying attention to grammar and how to communicate well, people will more easily communicate with others.

In the process of learning a foreign language, language errors often occur, this is due to various factors. The mistakes of L2 learners must be viewed positively. This error can be considered as an indicator of students' language competence at a certain point in time. The mistakes made provide the following information: First, tell educators what students still need to learn. Second, prove how language is learned. Third, the tools used by students to test their hypotheses regarding the language being studied [1]. Error
Analysis is one of the main topics in the field of second language acquisition research. Mistakes are an integral part of language learning. Learners of English as a second language are not aware of the existence of certain systems or rules in English. Mistake students have long been attracted to foreign and second language researchers.

The basic task of error analysis is to illustrate how learning occurs by examining student output and this includes the correct and incorrect speech. There are two main approaches to learning student mistakes, namely contrast analysis and error analysis. Error analysis cannot be learned correctly without touching the idea of contrast analysis. Contrast analysis and error analysis have been generally recognized as a branch of Applied Linguistics. This paper discusses in detail the three most influential error theories: contrast analysis, error analysis and inter-language theory.[2]. In research on linguistic errors conducted by students in constructing Mandarin time phrases, there are five types of errors, namely: (1) error in words usage, (2) confusion of numbers, (3) Hanyu Pinyin errors, (4) structural errors and (5) omissions of words. The error occurred because of differences in Mandarin and Malay grammar which differed between Mandarin and Malay and lack of time to learn[3].

In learning Mandarin, there are so many things that must be considered, one of which is the use of numbers. Indonesian also has number words. The number words should not be omitted because the meaning in the sentence will be different. For example: a teacher, in mandarin is yī wèi lǎoshī (一位老师) means to be a teacher, if the word for help is removed as yī lǎoshī (一老师) then the meaning is wrong and not in accordance with Mandarin grammar. Likewise with the Indonesian language which has numbers. Every noun in Indonesian and Mandarin has numbers.

The large number of number words, and the many similarities of meanings and functions, causes many students who have difficulty using numerical words when learning and implementing them in Mandarin. Tujuan dari penelitian ini adalah agar ada solusi bagi mahasiswa dalam belajar kata bantu bilangan. Melalui penelitian ini diharapkan memetakan kendala yang dihadapi mahasiswa dalam belajar kata bantu bilangan. Dari kesudah tersebut, maka peneliti akan merancang duatu aplikasi untuk belajar yang sesuai dengan gaya belajar mahasiswa sekarang. Rancangan tersebut bertentuk game interaktif yang memungkinkan mahasiswa untuk belajar mandiri sampai menguasai materi yang diajar. Rancangan model pembelajaran ini juga diharapkan dapat menjadi solusi pembelajaran dari mata pelajaran lainnya untuk membantu mahasiswa menguasai Mandarin.

2. Research Methods
The author will use qualitative methods. Researchers distributed questionnaires in the form of Mandarin questions to 38 students majoring in Chinese Literature. Responden is a student who has just studied Mandarin for 1.5 years. Students are asked to fill in the exact number words in the questions that are distributed. From the students' answers, the researchers analyzed the number words that were often used incorrectly and the reasons for their mistakes.

3. Result and Discussion
3.1 Numeric Word
Chinese auxiliary words are divided into 4 namely: [4]
1. Ge (个) In mandarin the number is used with a noun, the number nouns must be placed between the number and the noun. 
For example 三个 男孩: Three boys
2. The word number denotes a form, for example 条 (tiáo) for a long and flexible shape such as a snake 一条 蛇 Yītiáo shé (a snake) and so on
3. Abstract nouns, for example a news 一条 消息 (Yītiáo xiāoxī)
4. Material nouns, for example
This noun can occur with standard measure, container measure, indefinite small amount measure, for example:
一斤米 Half a kilo of rice (standard)
一瓶酒
一些水 some water (indefinite)

3.2 Results of Questionnaire Distribution
From the question about whether numbers are difficult, the following data are obtained:
Of the 38 students who answered difficult as many as 23 people with presentations 60.52% while those who answered not difficult as many as 14 people with presentations 36.84% and those who did not answer one person with a presentation of 2.63% (Table 1).

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| Difficulties                              | the number of students |
|-------------------------------------------|-----------------------|
| 量词 the amount is very much              | 14                    |
| How to use 量词 many rules                | 9                     |
| Requires accuracy in order to master      | 11                    |
| It is rarely discussed in the course being taught | 4                   |

Based on the graph above it can be concluded that 60.52% of the reasons for 2017 Binusian students answering to learn number words is difficult because the number of numbers 量词 is very much, requires accuracy in order to be able to master it, as well as the many rules of procedure for the use of number aids 量词. While 36.48% of the reasons students answered were not difficult because they often did exercises about number numbers, many Mandarin books used number words and other reasons were explained clearly during lectures.

From the results of the question whether the help of important numbers we can obtain the following data (Table 2):  

| The reason why is important                | the number of students |
|-------------------------------------------|-----------------------|
| Very used in writing and communicating everyday | 21                    |
| Make it easy to answer in practice questions or examinations | 12                    |
| Is an added value for individuals         | 12                    |
| It is a must to learn the Mandarin word number | 20                   |

Based on the picture above it can be seen as many as 89.47% of students answered that learning 量词 is important because it is used in writing and communicating everyday, it is a must if learning Mandarin will definitely learn Mandarin words into additional values for individuals and make it easier if answer practice questions or exams.
According to students the number words taught by lecturers in Chinese literature BINUS are in line with expectations. As many as 71.05% of students felt that the discussion about the use of the word mandarin was clear, while 28.94% felt that the discussion about the use of the word number was unclear. The author feels that there are several aspects of the cause, firstly from the material aspect that the textbook used is still very much that teaches Mandarin numeric words, besides that the learning time is very limited and the material is very much. Therefore textbooks also play a very important role in learning Mandarin. Selection of the right textbook will help students to learn [5].

The respondent's view of how to improve the ability of number words is by the number of exercises in constructing sentences in Mandarin that use number words (45.26%). As many as 22.63% of respondents thought that they often read Chinese books. As many as 32.11% said they practice these number words in daily conversation.

As many as 44.22% of respondents think that the obstacle in learning number aids is the number of number words that need to be learned so that errors in their use are not yet mastered. As many as 37.36% answered due to lack of exercise. Then 18.42% of respondents said the lecturer rarely discussed it in lecture.

Lack of practice and the number of number words can be learned by repeating number words so that students are able to remember them. As a method used in children with sentence repetition (SR) to measure children's language skills and test the development of speaking skills in mastering a second language, as well as to survey bilingual language development skills. Respondents were bilingual Mandarin-English preschoolers, aged four to six years. The assignment was carried out in both languages: Mandarin and English, to examine the types of grammatical errors found among different age groups in SR assignments. [6].

4. Conclusion
In examining the Conditions of Using Numbers (量词) of Chinese Literature students at Bina Nusantara University it can be seen that when answering multiple choice questions, students master the given numerical help questions, because they can choose the right answer. Whereas in the second part of the test problem, students are given essay questions and write numbers for help without being given the answer choices. The result is a higher percentage of students who answered wrong and did not answer compared to those who answered correctly. So it can be concluded that the conditions of using number words in Chinese Literature students at Bina Nusantara University are not good. As many students think that learning Mandarin words is difficult, because the number of Chinese words in Chinese is so large that it requires accuracy in learning numerical words.

Therefore the solution offered is the existence of teaching aids that can help checking errors in the use of numbers by utilizing technology. As research has been done by previous researchers by constructing a set of linguistic rules manually with syntactic information to detect incorrect sentences that are often written by Second Language Learners (SLL). If the sentence fulfills at least one syntactic rule, the system developed will regard the input sentence as wrong and respond with suggestions to indicate possible errors [7]. Penggunaan teknologi bisa dengan metode online atau offline game based learning yang bisa menjadi daya tarik mahasiswa untuk belajar dengan cara yang lebih menyenangkan[8]. Dengan pembelajaran offline, mahasiswa bisa belajar di mana dan kapan saja tanpa ada kekhawatiran gangguan dari signal internet [9].

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