The Use of Naritachi to Memorize Kanji

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Abstract—This study is motivated by difficulties faced by intermediate-level Japanese language learners, namely the lack of understanding of the meaning of kanji so it makes it difficult to memorize kanji. This study aims to determine the connection between the meaning of kanji and the formation of kanji, to find out whether the use of naritachi can be applied in kanji mastery. The subjects of this study are 23 students studying Japanese at the intermediate level. The results of this study are expected so that naritachi can help students memorize the meaning of kanji. From the results of the study note that the ability of respondents to increase, from the mean value test of 52 to the mean value test mean = 85.05. Based on the result of the questionnaire, it is known that most respondents are easier to apply, to understand and to remember the kanji. Thus, the implication of using kanji’s naritachi is that Japanese language teachers can teach the meaning of kanji and bushu (radicals) to Japanese students at beginner and intermediate level.

Keywords: kanji mastery, kanji meaning, long term memory, memory strategy, naritachi

I. INTRODUCTION

Kanji is widely recognized as the most difficult hurdle to overcome in learning Japanese, little research has been undertaken on the selection and order in which kanji are taught to non-kanji backgrounds learners, hereafter NKB learners (Paxton & Svetenant, 2014). According to Gamage (2003), the typological differences between kanji and alphabets are assumed to be responsible for this difficulty (Bourke, 1996, as cited in Gamage, 2003). The kanji characters are physically complex and are phonemically very similar, all of them have a meaning on their own, often combined to form various words with new meanings (Tamaoka, Kirsner, Yonase, & Miyaoaka, 2002), making them difficult to commit to memory (Gamage, 2006; Mori, Sato, & Shimizu, 2007; Toyoda, 1998, as cited in Neshit, 2013). Therefore, a learning strategy is needed in order to teach kanji more effectively to NKB learners, understanding how the NKB learners perceive and process kanji is helpful (Paxton & Svetenant, 2014).

Toyoda (1995, as cited in Usuki, 2000) reported from her survey results that NKB learner areas tended to have difficulties in retaining what they have memorized rather than in memorizing the kanji itself. One might surmise from this that students could retain information in their Short Term Memory (STM) but had difficulty encoding information to their Long Term Memory (LTM) or to a sufficient depth of processing. This is a very common scenario in which students use rote learning to memorize kanji and can often produce good results in tests but fail to retain the information after testing. This is also strengthened by Yuki's (2009) research which states that the students feel that it is difficult to keep remembering kanji for long-term. In addition, the physical complexity, a variety of readings and meanings presented by kanji confuse the NKB learners. One advantage of knowing the kanji components is that more complex kanji can be broken down into more easily remembered components (Paxton & Svetenant, 2014). On the other hand, the students find beneficial features such as its pictographic meanings and kanji internal components. So that the NKB learners can maintain memorization of kanji, one way is to use a memory strategy; the concept of kanji’s naritachi. The kanji’s naritachi is based on explaining kanji through the elements that form them. Memory strategy is based in associations, kanji’s naritachi (kanji’s formation) and comparisons in order to better keep information by forming connections. Linking information is the better way to keep it, so it will not be lost in working memory, but appropriately stored in LTM (Michele Sá, 2015).

According to Paxton and Svetenant (2014), basic kanji learning can be taught through the etymology of the kanji. The etymology of the kanji is however only practical for kanji which come under the category of ideographic kanji (象形文字 shoukeimoji). One advantage of knowing the kanji components is that more complex kanji can be broken down into more easily remembered components. Then Kaho (2008) stresses the importance of kanji as ideogram to get students motivated. Kanji can be classified into any of four categories: Shokei-moji, Shiji-moji, Kii-moji and Keisei-moji. These features could draw the attention of learners and, in addition, the origin of kanji characters might motivate students especially at the beginner level. Besides being able to motivate NKB learners at the beginner level, the use of the kanji’s naritachi is very important for beginner and intermediate NKB learners so that it is easy for them to learn and memorize advanced-level kanji. To the best of the author’s knowledge, no study has been conducted to apply the naritachi kanji on the ability to memorize intermediate-level kanji in the long run and to determine the response of the NKB learners to the learning technique. However, there is a previous relevant study about the importance of kanji as ideogram to get students motivated.
II. METHOD

A. Research Method

In this study, we adopted a quasi-experimental design (Shadish, Cook, & Campbell, 2002) to test whether kanji learning using the concept of naritachi can maintain the ability to remember kanji for a long period of time. We employed a one-group pretest–posttest design and questionnaires.

B. Participants

A total of 23 NKB learners studying in the second year of university students in West Java Indonesia took part in the present study. They contracted the Chuukyuu Hyouki course (intermediate kanji courses) and have studied 220 kanji letters which are equivalent to kanji letters on the N5 and N4 Japanese Language Proficiency Tests, hereafter JLPT.

C. Materials

The material used in this study consisted of 40 kanji contained in the JLPT N4 (see Table I) which was explained using powerpoint containing naritachi. According to Tamaoka, Makioka, Sanders, and Verdonschot (2017), the most common classification for kanji is called the Rikusho Bunrui or Six Classification of kanji (Tamaoka et al., 2002, as cited in Tamaoka et al., 2017). The rikusho being classified into four namely i.e. 1 shokeimoji (pictograms) is a kanji formed from simplification of natural form (see Figure 1); 2 shijimoji (diagrammatic kanji) is a simplification of something abstract or a concept that would be difficult to depict with pictograms (see Figure 2); 3) kai-i moji (compound-semantic kanji) is a kanji derived from a composite of two or more previously created kanji that form a new meaning (see Figure 3); 4) keiseimoji (phonetic-semantic kanji) is a kanji which is a combination of two kanji that express meaning and speech. It is said that more than 80% of the kanji used today fall into this category (see Figure 4) (Banno, Ikeda, Shigawa, Tajima, & Tokashiki, 2009).

TABLE I. KANJI N4 USED IN THIS RESEARCH

| Treatment | Kanji                           |
|-----------|---------------------------------|
| 1         | 家、族、兄、弟、妹、親、部、切、所 |
| 2         | 熱、場、始、終、使、客、売 |
| 3         | 銀、黒、昼、暗、朝、利、前 |
| 4         | 荷、送、宅、住、通、連、転、速、近 |

D. Procedures

This study was conducted in six meetings which were divided into two meetings for pre-experiment, pre-test, post-test and questionnaire. Four meetings were used to carry out the treatment using naritachi concept from rikusho concept. Kanji learning duration for each treatment is 100 minutes. Data obtained from pre-test, post-test and questionnaire. The research steps use the stages of “Wakaru Oboeru and Tsukau” (Herniwati & Aneros, 2014) as follows: 1) Fukushuu (repeating previous material); 2) Wakaru stage (knowing) is carried out by introducing kanji by using a powerpoint containing onyomi (the chines reading of kanji), kunyomi (the japanese reading of kanji), writing method, and the kanji story or formation of kanji (naritachi); 3) Oboeru stage (remembering) is carried out by explaining the kanji letters that are not yet understood using naritachi, memorizing bushu (radicals), similar kanji, and word association games; 4) Tsukau stage (using) is carried out by reading the discourse and answering the questions in the textbook.

III. FINDINGS AND DISCUSSIONS

A. Findings

The ability to memorize kanji is measured through pretest and post-test data. The average pre-test score of 52 is in the very poor category, while the post-test average score of 85.05 is in a good category. The graphic can be seen below (see Figure 5).

It can be concluded that there was an increase of 33.05 points. To strengthen the hypothesis that there is a significant increase in the value points after treatment, this reinforces that the concept of naritachi can help NKB learners memorizing kanji for a long time.
B. Questioner Findings

Furthermore, the analysis of research instruments in the form of questionnaires and observations were used in this study. The questionnaire was containing five questions relating to the use of naritachi to memorize kanji in intermediate level kanji learning (see Table II). Based on the findings of the questionnaire, it is known that the percentages of respondents’ responses are above 85%. It also shows that the use of naritachi can help in memorizing kanji for a long time. Heisig (2001, as cited in Michele Sá, 2015) said that by making associations and even short stories from the elements in a kanji, so that it becomes easier to memorize. This is supported by the statement of respondents through the questionnaire that they can imagine and then practice the ability to memorize, and also associate a kanji. After they know the naritachi of a kanji, ideas emerge to make the kanji description so it will be easier to memorize. Understanding bushu (radicals) from kanji can help respondents to easily imagine them.

### TABLE II. THE QUESTIONER RESULTS

| No. | Statements                              | Percentage of responses |
|-----|----------------------------------------|-------------------------|
| 1   | Naritachi can help in kanji memorization | 90%                     |
| 2   | By knowing naritachi, you can guess the meaning of the new kanji | 87%                     |
| 3   | Makes you easier to understand kanji | 88%                     |
| 4   | When you forgot, by knowing naritachi, you can memorize the kanji again | 88%                     |
| 5   | Knowing bushu (radicals) and naritachi can help in imagining kanji | 90%                     |

C. Discussion

Based on observations, in this first treatment, at the beginning of learning, it was found that 75% of respondents had difficulty memorizing the kanji, 族 (meaning family) which naritachi is from Kaiimoji, 親 (meaning parents) and 所 (meaning a place) which naritachi are from keiseimoji. From the observation, almost all respondents thought that kanji 族 (zoku) was formed from kanji 万 which means direction. Based on the naritachi kanji book, the kanji 族 (zoku) is formed from the kanji 万 (symbolizing the flag) and 矢 (meaning arrow). The reason for using the kanji 万 (symbolizing the flag) is because, in earlier times, each tribe or clan had different flags and arrows design (Ito & Kaneko, 2012). The same naritachi concept is also found in the book Kanji Look and Learn, that under the flag, people protect their families with their arrows (Banno et al., 2009). From the observation, it was found that almost all respondents thought that Ito and Kaneko's theories were easily understood and it helped them to memorize more easily. The next kanji that is difficult to memorize is the kanji 親 (meaning parents). This kanji's naritachi is kaiimoji or combination kanji. Some respondents are confused with the kanji 新 which means new. According to the Naritachi Kanji Book that the left side of the kanji 新, reads 'shin' which means the spirit board. While the kanji 新 (looking) in the kanji 新 is the imagination of the person who is worshipping the spirit board (Ito & Kaneko, 2012). However, when teaching kanji 親, this is difficult for respondents to understand. Therefore to make it easier to memorize this kanji is by forming the kanji, which the formation consists of three kanji, namely kanji 立 (meaning standing), 木 (meaning tree) and 見 (meaning seeing), to memorize this kanji, it can be illustrated as parents that stand behind the tree to see their children. Next is the kanji 所 (meaning a place) and these kanji belong to the kaiimoji or combination kanji. It consists of two kanji, namely kanji 戸 (meaning a door) and 斤 (meaning an ax). From observation, it is known that half of the respondents do not know the kanji 戸 (meaning an ax). If they know the meaning of the kanji 戸, it will be easy to make a story to memorize this kanji. According to marking the door (戸) with an ax (斤) to indicate it is the place (Banno et al., 2009).

In the second treatment, the respondent's difficulty was when memorizing the kanji 客、終、和 場. These three kanji are formed from kaii and keiseimoji. Kanji 客 consists of bushu (radicals) 、夕 which means the roof of the house and 各 (each). Kanji 終 consists of bushu 終 (meaning thread) and kanji 冬 (meaning winter). Initially, the kanji 冬 has the meaning 'ending' and 'the form of a bond between the two ends of the thread'. Then this kanji changes meaning to fiyu (winter), then for kanji which has the meaning 'ending', the kanji form is added with the kanji 終 as the bushu (Ito & Kaneko, 2012). After explaining this kanji's naritachi, some respondents made their own stories based on the naritachi to be easily memorized, which is winter is over so we will not knit scarves with yarn. Kanji 場 consists of 土 which mimics the image of hardened ground in a column used to worship a land god while 易 symbolizes the sun rising above the earth. For the third treatment, there are five kanji that are difficult to memorize, namely kanji 銀、黒、朝、晩、和 低. Naritachi of kanji 銀、黒、朝、晩、和 低 are keiseimoji, naritachi of kanji 黒 is shokeimoji and kaiimoji for kanji 朝. Naritachi of kanji 銀 (silver) consists of bushu (radicals) 金 (things related to gold) and kanji 銀 means back or next. Then the story of the formation of this kanji is kanji 銀 (silver) is a good item after 金 which has gold meaning (Takebe, 1993). Next is kanji 晩 (an evening) consists of bushu 日 (things related to the sun) and kanji 晩 (escape) and the way to memorize it is by an illustration that at night the sun escapes from the earth. Next is naritachi of kanji 低 (low) which consists of bushu イ (human-related matters) and kanji 低 which means flatten (Ito & Kaneko, 2012).

The kanji 黒 is composed of the upper part, 里 means village and the lower part of this kanji, is the bushu (radicals) 、夕 which has the meaning of fire. And to memorize it with a story is that the house in the village, in the middle of the house there is a fireplace so that the house becomes black because of the smoke (Takebe, 1993). Meanwhile, according to Ito and Kaneko (2012) kanji 黒 are formed from the conditions of making sumi or ink for writing Japanese calligraphy. From observations during the treatments, respondents found it easier to memorize these kanji by using Takebe's concepts. Next is
There are seven kanji that are difficult for respondents to memorize, namely kanji 住 (meaning things related to the moon) while the left kanji has a symbol of the sun rising above the meadow (Ito & Kaneko, 2012).

According to Takebe (1993) kanji 住 (a load) consists of bushu (radicals) kusakanmari ‒ meaning grass) bushu ninben (means human, and kanji 何 (meaning what). The initial form of this kanji is a form of a person carrying a halberd. Initially, kanji 何 has the meaning of carrying on one's shoulder or to bear. In the end, the kanji 何 means 'what'. And for kanji which means bear, it is formed from kanji 何 and bushu (radicals) kusakanmari meaning grass (Ito & Kaneko, 2012). When introduced and explained the origin of the kanji 何, most respondents followed Takebe's theory to memorize this kanji because it was easier to memorize. Next is the kanji 送 (meaning send) consists of bushu _ (displacement or leave) and the right kanji 关 imitates the shape of the hand that pushes the item up. According to Ito and Kaneko (2012) explained that kanji 送 (meaning quick) consists of bushu _ (displacement or leave) and kanji 束 (a bundle). To make it easier to memorize, the story is 'quickly leave with a bunch of flowers'. Kanji 重 (meaning heavy) consists of the lower part, namely bushu (radicals) 巴 (a load) consists of bushu _ (displacement or leave) and the top of kanji 千 (a thousand). According to Takebe (1993) kanji 重 is formed from kanji 主 at the bottom means land, kanji 千 at the top means a thousand, and kanji 田 are symbolized as goods. To make it easier to memorize, a story is made; because it is heavy (重) so many items are placed on the ground. Also, some respondents make kanji stories (重) to make it easier to memorize, that is, it's hard to leave a village filled with a thousand memories. Next is the kanji 遠 (meaning far/distant from) consists of bushu _ (displacement or leave) in the left and the right kanji 遠 means long kimono. Based on the Naritachi Kanji book, kanji 遠 states the condition of our separation from the deceased (Ito & Kaneko, 2012). Kanji 遠 (meaning near/close) consists of bushu (radicals) _ (displacement or leave) and kanji 寸 (meaning an ax). According to Ito and Kaneko (2012) explained that the kanji 寸 has the meaning of an ax but this kanji read as 'kin'. This is what makes kanji 遠 included in the keiseimoji category. However, besides the naritachi concept, we can also create stories such as: if the road is cut with a hatchet, it will feel close (Banno et al., 2009). This story will be easier to understand and easy to imagine. And the last one is kanji 住, meaning to domicile or to live. According to Takeba (1993) that this kanji consists of bushu ninben （meaning things related to human) and kanji 主 (meaning main/principal). On the kanji 主, it looks like a symbol of light or akari. In this kanji, as if the akari symbol is not moving, it is therefore made as a kanji 住 which means to stay.

After being explained of the kanji based on its formation (naritachi), the respondents are getting used to the concept, so they can easily understand and memorize the kanji that has been taught. Based on the results of the analysis of the research questionnaire given to respondents it can be concluded that the majority gave positive responses. This can be seen from the majority of respondents' answers stating that learning to memorize the kanji using naritachi is fun because, by understanding naritachi, it will be easier to memorize the kanji through the imagination and the story of the kanji. Besides, 90% of respondents stated that learning to memorize the kanji by using the concept of naritachi can help them become more understanding and able to memorize the kanji over a long time. Through the concept of naritachi, respondents can directly write and understand the meaning of the kanji. From the observations, it can also be seen that in each meeting, more and more students who dare to describe and also guess a kanji either through stories or through writing and drawing are increasing.

IV. CONCLUSION

Learning kanji by using the concept of naritachi and PowerPoint media has a good influence. Naritachi's concept can help respondents in memorizing the meaning of kanji for a long time. Understanding the concept of naritachi at beginner and intermediate-level will make it easier for respondents to memorize advanced-level kanji. Also, due to differences in the way of thinking and culture between respondents who are NKB learners and Japanese, some kanji concepts are rather difficult to understand and implement in intermediate level learning. So that the respondents' idea also comes up on how to memorize kanji by creating a story based on their naritachi style (Heisig, 2001, as cited in Michele Sá, 2015).

The use of the naritachi concept in intermediate level kanji learning in this study is still in the stages of memorizing the form of kanji, the meaning of kanji and bushu (radicals). Then for the next level, this naritachi concept can be developed as a kanji learning strategy in memorizing how to read on (Chinese reading of kanji) and kun (Japanese reading of kanji).

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