Learning Japanese Kanji writing method by International JSL Learners from Non-Kanji country
- Using Kanji Learning Software on Their Smartphones-

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Abstract : This study uses smartphone application to learn writing method of Japanese Kanji. The foreigners from Non-kanji country use the text input function of smart device to learn writing method of Kanji, which they would copy writing the Kanji, practice Kanji strokes and radicals, and self-evaluate the Kanji writing strokes and radicals. Thus, they would know how to use this method to learn new Kanji. This study will compare the correct writing rate of pre-test and post-test, analyze stroke order and writing method before and after learning, to confirm whether the learners can write Kanji correctly, analyze the change of correct writing rate of Kanji before and after learning. The main purpose of this study is to check whether the learners can write Kanji that they have not learned previously.

Keywords : Kanji, Non-kanji country, JSL(Japanese as a second language), Smartphone, Text input

1. INTRODUCTION

For non-Kanji JSL foreigners, learning Kanji is the most difficult part of the process of learning Japanese. The shape of Kanji is complex, the number of Kanji words is large, and the writing method is difficult. Therefore, this research will study how learners from non-Kanji countries learn and practice Kanji writing method. They need to understand the radicals and the structure of Kanji to recognize and understand Kanji. Based on the theory of cognitive psychology, this study examines and evaluates the learning strategies.

Smartphone applications provide a language learning environment that is not limited by time and place. JSL learners could use fragmented times to learn Kanji by smartphone. Thus, they achieve self-learning and individualized education using smartphone apps. The apps help JSL learners to learn radicals, memorize complex Kanji and distinguish visually similar ones. Learners can check writing method by themselves, and also can learn the Kanji writing order during the self-test.

2. RESEARCH DESIGN AND METHODS

2.1. Research object

The research subjects of this study are two international JSL learners who are studying at the Aichi University of Education. They studied Japanese at Nagoya University for six months. Both of them have not taken the Japanese level examination. Through daily communication, the Japanese level of the research subjects should be about N5 level, but they can't fully understand the shape, meaning, and pronunciation of Japanese Kanji. The difficulty of understanding Japanese Kanji has become an obstacle for them to continue to improve their Japanese proficiency, which makes it difficult for them to become advanced learners of Japanese.

2.2. Research agenda

This research has been separated into three parts in total, basic lessons of Kanji writing order method, self-learning and self-evaluation by JSL learners usage smartphone apps, and final report will be done at last, which will compare the pre-test and the post-test, and analysis the changing rate of kanji writing order method.

2.3. Pre-test

The pre-test was done on 7 June, 30 Kanji words of the Level N5 were chosen. JSL learners copied them one by one, like practicing Kanji copying in handwriting. Whether they could write the Kanji words using the right stroke order, and the accuracy rate of Kanji were checked after pre-test.

2.4. Basic lessons

The basic lessons were about 24 Kanji elements, 56 Kanji radicals and 7 Kanji structures, JSL learners were taught some basic knowledge through these lessons, and they can master the writing skills faster.

2.5. Self-learning and self-evaluation by smartphone applications

Ten courses have been implemented from the middle of October to the end of December. Learners did 6 times writing lessons by application, and practiced 4 times test lessons by application.

2.6. Post- test

The post-test was done at the end of January, in which the international learners would copy 30 Kanji words of the Level N5, and 20 of them were not tested at the pre-test. The post-test could check out if the learners can write new Kanji that they have not learned previously, and how many new Kanji words can be written correctly signifies that if this study is success or not.

3. CONTENT AND THEORETICAL BASIS

This study uses Kanji Learning applications on smartphones, help the JSL learners to learn Kanji writing method by self-learning and self-test of Japanese Kanji writing method. Specific steps are as follows:

3.1. Kanji elements in the common Kanji words

According to the study of Galina Vorobeva, there are 24 Kanji elements in the common Kanji words. JSL learners can have a deeper understanding of the structure and meaning of the Kanji through the understanding of Kanji codes. The First course was done on 14 June, where JSL learners learned 24 Kanji codes which are the basic strokes of Kanji. The Kanji code transforms complex Kanji words into simple symbols that are easy to remember and converts short-term memories with limited capacity into long-term memories with unlimited capacity. Symbolization helps to improve memorability.

3.2. Learning Kanji radicals

There are 56 radicals for N5 level, which were made by 24 basic codes, and radicals are also the base part of

complex Kanji words. The JSL learners learn Kanji radicals by the application "Asahi-JLPT-N5". Kanji words are divided into simple Kanji and complex Kanji. Complex Kanji is composed of simple Kanji and radicals. From the meanings of single Kanji and radicals, the learner can deduce the meanings of new complex Kanji words. Learning the basic code will help the learner memorize complex Kanji. Thus, classification of radicals is a learning strategy that could support learners' understanding of how Kanji is written.

3.3. Learning Kanji structure

Japanese Kanji is a two-dimensional, complex character compared to phonetic characters. Therefore, the Kanji writing method is different with phonetic characters. There are seven basic structures. JSL learners learn them and study and recognize the structure from simple words to complex words. Classifying Kanji structures to these seven types can help learners understand the Kanji structure more effectively, and also write Kanji that is more proportioned.

3.4. Self-learning and self-test

There are ten courses for JSL learners from the middle of October to the end of December.. This study was carried out through smartphone application ("Kanji Ichi nen sei APP" and "Kanji Kakijun hantei APP") to achieve self-learning and self-test during the learning process. JSL Learners can made self-judgments by themselves constantly. It's a Self-regulated learning process by which a learner initiates and sustains systematically oriented cognition, emotions and behaviors to achieve an acquisition goal.

4. RESULTS AND EVALUATION

4.1. Pre-test and results

The pre-test was done on 7 June. The correct rate of the two research subjects were 47% and 30%, and the rate of accuracy in writing order were 10% and 4%. JSL learners didn't know the first stroke to write, as they do not understand the writing order and the structure of kanji. Through observation during the writing activity, they put the paper at an angle of 45 degrees diagonally upward in front of them, the same as they were writing English words and use the pen diagonally. Thus, they cannot write the characters correctly. They do not know the size and the ratio of the radical. Especially for the learners from Arabic countries, the research subjects unconsciously write Kanji from right to left like Arabic. It is necessary for non-kanji JSL learners to learn Kanji writing method.

4.2. Kanji test evaluation project

According to <Basic Kanji Book>, a primary textbook for Kanji beginners, the evaluation measuring Kanji level is divided into four parts: shape, reading, meaning, and usage. The focus of this study is to improve the comprehension of the structure of Kanji and the ability to write Kanji. After each course, a small test is conducted to analyze and test whether each goal has been achieved.

After 3 weeks basic lessons, which was 3 hours of learning, JSL learners can complete the following goals, and they can practice Kanji on the smartphone by themselves. The goals are listed as follows: (1) Find out the similar element and radicals in different words, (2) Distinguish glyph of similar Kanji, (3) Find common parts of Kanji, (4) Recognize the same structure of Kanji, (5) Select kanji in the same character from a group, (6) Find out the different Kanji words in the same font group, and (7) Find out the radical.

4.3. Post-test and evaluation

After the basic lessons, JSL learned Kanji writing method by them usage smartphone applications in ten times courses. And then, post-test was done, there were 10 words which were used in the Pre-test, and 20 new Kanji words. After comparing the accuracy of Kanji writing method between pre-test and post-test, the correct rate of the two research subjects were changed to 97% and 74%, and the rate of accuracy in writing order became to 81% and 75%. By observing their writing behavior, they also overcome many wrong writing habits. Before copying, they would seriously watch the Kanji word and think about where to start the first stroke and how to break down the strokes. The specific and obvious changes are as follows : (1) Right corner break, before this study, learners cannot write "horizontal folding" as one writing stroke, they always broke it into "horizontal" and "fold" separate as two writing strokes. Now, they can write it correctly. (2) Link the first and second writing order of "子", learners could not break the first and second writing order in before, now they can write "子" and "学" in correct order. And "長" also can be written in right order, the first stroke of "長" cannot be written as a "long vertical", which should be separated into the first stroke "short vertical" and the sixth stroke "vertical raise". (3) Both of two learners wrote the third stroke of "口" from right to left at the beginning of this study. After several error prompts, they recognized the wrong point and corrected the writing direction in time.

The learners can write Kanji that they have not learned previously. This study improved the ability of international learners to understand Kanji radical and they can write Japanese Kanji stroke of N5 level in correct order.

5. CONCLUSION

JSL learners can learn basic methods of writing through the method described in this study. Self-learning and self-evaluation with smartphone can improve the learners' cognitive understanding of Kanji radicals and structures. Thus, practicing Kanji using this method would improve the muscle motility of the learners, which supports their ability to write Kanji. The accuracy rate of post-test, compared with the pre-test, were increased by 8.38 times and 16.25 times.

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