



Implementation of Hiragana Katakana Digital Media Memory Hint the Japan Foundation in Students Learning Hiragana Katakana Letters at Smp Lab School UNESA 3 Surabaya

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Abstract. The presence of digital media or learning applications on smartphones is expected to help the independent learning process of Japanese hiragana and katakana letters for junior high school students at UNESA 3 Lab school Surabaya.. The digital memory hint application produced by The Japan Foundation uses anime illustrations in order to help children quickly comprehend how to read and write the letters hiragana and katakana. It is intended for people of all ages who want to learn the letters hiragana and katakana. Additionally, it makes learning the hiragana and katakana letters more visually appealing. Due to the fact that this digital media only recently became available in 2020, researchers will assess if it is consistent with the learning objectives. Due to the fact that this digital media only became available in 2020, researchers will look into whether it is consistent with the learning objectives. The formulation of this research is (a) how is the the Semester Learning Plan (*Rencana Pembelajaran Semester* (RPS)) learning sequence/implementation, (b) how are the learning outcomes of students reading and writing hiragana and katakana letters before and after using digital memory hint. The following study goals must be met: (a) explaining the Semester Learning Plan (*Rencana Pembelajaran Semester* (RPS)) implementation; (b) reporting student learning outcomes by comparing students' reading and writing skills for hiragana and katakana before and after utilizing digital memory hint media.

Keywords: memory hint, hiragana, katakana.

1 Introduction

Indonesia and other countries across the world are currently interested in traveling to Japan. In addition, the number of Japanese language and culture learners in Indonesia is increasing from year to year. This is supported by data from The Japan Foundation [1], which shows that after China, Indonesia is the country with the second-highest number of Japanese language learners, who study both the language and the culture of Japan. Numerous Japanese businesses are also making investments in Indonesia.

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Japanese communities have started to proliferate in Indonesian cities as anime, manga, and cosplay among Indonesia's youth grow in popularity.

According to Tadashi Ogawa [2], Indonesia is the country with the second largest number of Japanese language learners in the world, reaching 3.984.538 people, according to a quick calculation by the Japan Foundation (JF). Currently, based on the latest data for 2022 Indonesia is the country with the second largest number of Japanese language learners in the world, behind China.

Indonesia ranks second behind China with 1,046,490 people studying Japanese. Then Indonesia is below South Korea, which previously ranked first, with 840,147 Japanese language learners. There was a 21 percent increase compared to the previous three-year data collection or in 2009. In 2022, the number of Japanese language learners in Indonesia reached 716,353 people, making Indonesia the country with the second largest number of Japanese language learners in the world, according to a quick calculation by The Japan Foundation (JF), where young learners and teenagers are increasingly crazy about Japanese comics (manga) and anime. Ogawa [2] believes that the opportunity to study in Sakura Country is one of the biggest reasons for Indonesians to learn Japanese. Interest in learning Japanese at SMP LAB School UNESA 3 Surabaya is also increasing but is constrained by the pandemic the enthusiasm for learning the letters hiragana and katakana has decreased due to conventional teaching methods such as teachers writing letters on the blackboard then students are told to imitate writing and reading supported by an online learning system. Researchers are very grateful that during the pandemic The Japan Foundation issued Memory Hint for the letters hiragana, katakana and kanji, but what researchers will use for SMP Lab school UNESA 3 Surabaya is only the letters hiragana and katakana because kanji has not been given in junior high school.

1.1 Research Urgency

Students of SMP lab school UNESA 3 Surabaya as Japanese language learners have learned hiragana and katakana but due to pandemic constraints and a new online learning system, it have an impact on the ability to master the letters hiragana and katakana at this time. The conditions experienced by students at this time really need a new touch digitally where students' daily lives are always side by side with handphones.

This memory hint issued by the Japan foundation uses anime illustrations. The researcher hopes that with the implementation of Hiragana Katakana Memory Hint digital media on learning hiragana and katakana letters, students can learn these letters more easily and fun, and improve their ability to read and write hiragana and katakana letters. Memory hint can be used by students to learn letters through their mobile phones. The memory hint contains hiragana and katakana tables, how to use them, as well as quizzes, all presented with anime illustrations so that learners can learn hiragana and katakana letters anywhere with fun.

1.2 Research Limitation

In order for the research to be centered on the formulation of the problem, in addition, the object of this research is limited to students of SMP Lab UNESA grade 9. the focus of this research is generally formulated as follows:

- a. How the sequence of learning/implementation of Semester Learning Plan (*Rencana Pembelajaran Semester (RPS)*)
- b. How are the students' learning outcomes before and after using hint memory hiragana and katakana

1.3 Hiragana and Katakana

One of the attractions of learning Japanese is learning Japanese alphabets consisting of hiragana letters, katakana letters and kanji letters, each letter has its uniqueness. In the beginning, hiragana letters were not immediately accepted by the Japanese people, even the scholars and the elite refused to use hiragana letters, they preferred to use only kanji letters. At that time hiragana became popular among Japanese women who were not allowed to learn and use Kanji. The popularity of hiragana among Japanese women led female writers to use it as a tool to write their stories. One of them is "Genji Monogatari". For this reason, hiragana was known at the time as *Onnade (女手)*, which means female characters.

Sadiman in Ruswandi and Badrudin [3], asserts that media comes from Latin, which is the plural form of medium which literally means intermediary or introducer. Meanwhile, Ruswandi and Badrudin [3] explained that learning is a communication process between students, teachers, and teaching materials. So, learning media is an intermediary or delivery of learning message sources to message recipients. Hiragana began to be widely used in the 10th century AD (*Anno Domini*). Hiragana letters are formed from curved lines and scribbles (*kyokusenteki*). The Hiragana letters used today are based on the 1900 Japanese Ministry of Education Guidelines. The Hiragana letters were modified to be more in line with Japanese grammatical writing after developing from the Kanji letters. Hiragana is also used to write the names of native Japanese words, such as me (*watashi = わたし*), Japan (*Nihon = にほん*), Takeshi (*たけし*), etc.

Katakana letters: originated from the Kanji letters and then developed by Buddhist clergy with the aim of reciting Buddhist scriptures written in Chinese Kanji. Katakana is used to write absorbing words, such as banana (*banana = バナナ*), laptop (*pasokon = パソコン*), Amir (*Amiru = アミ*). The katakana letters are almost the same as Hiragana, but katakana has 45 letters, and in ancient times Katakana was a letter commonly used by men. Therefore, it is evident from the shape and structure of the letters that look stiff and sharp. This letter is commonly used to write foreign words that are adapted into Japanese. Its function is almost the same as Hiragana, but it has different characteristics and letter shapes.

イ レ ズ ミ **KATAKANA CHART** イ レ ズ ミ

アイウエオ A I U E O	ラリルレロ RA RI RU RE RO	キヤ キユ キョ KYA KYU KYO	ギヤ ギユ ギョ GYA GYU GYO
カキクケコ KA KI KU KE KO	ワ WA W(O)O N	シャ シュ ショ SHA SHU SHO	ジャ ジュ ジョ JA JU JO
サシスセソ SA SHI SU SE SO	ガ ギ グ ゲ ゴ GA GI GU GE GO	チャ チュ チョ CHA CHU CHO	チャ チュ チョ JA JU JO
タチツテト TA CHI TSU TE TO	ザ ジ ズ ゼ ゾ ZA JI ZU ZE ZO	ニヤ ニユ ニョ NYA NYU NYO	ビヤ ビユ ビョ BYA BYU BYO
ナニヌネノ NA NI NU NE NO	ダヂヅデド DA JI ZU DE DO	ヒヤ ヒユ ヒョ HYA HYU HYO	ピヤ ピユ ピョ PYA PYU PYO
ハヒフヘホ HA HI FU HE HO	バビブベボ BA BI BU BE BO	ミヤ ミユ ミョ MYA MYU MYO	— ツ Long Vowel Double Consonant
マミムメモ MA MI MU ME MO	パピプペポ PA PI PU PE PO	リヤ リユ リョ RYA RYU RYO	
ヤ ユ ヨ YA YU YO			

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Fig. 1. Katakana chart

HIRAGANA

あ a	い i	う u	え e	お o	—	—	—
か ka	き ki	く ku	け ke	こ ko	きや kya	きゆ kyu	きよ kyo
さ sa	し shi	す su	せ se	そ so	しゃ sha	しゅ shu	しょ sho
た ta	ち chi	つ tsu	て te	と to	ちゃ cha	ちゅ chu	ちょ cho
な na	に ni	ぬ nu	ね ne	の no	にや nya	にゅ nyu	にょ nyo
は ha	ひ hi	ふ hu	へ he	ほ ho	ひや hya	ひゅ hyu	ひょ hyo
ま ma	み mi	む mu	め me	も mo	みや mya	みゅ myu	みょ myo
や ya	—	ゆ yu	—	よ yo	—	—	—
ら ra	り ri	る ru	れ re	ろ ro	りや rya	りゅ ryu	りょ ryo
わ wa	—	—	—	を wo	—	—	—
ん n	—	—	—	—	—	—	—
が ga	ぎ gi	ぐ gu	げ ge	ご go	ぎや gya	ぎゅ gyu	ぎょ gyo
ざ za	じ ji	ず zu	ぜ ze	ぞ zo	じゃ ja	じゅ ju	じょ jo
だ da	ぢ di	づ du	で de	ど do	—	—	—
ば ba	び bi	ぶ bu	べ be	ぼ bo	びや bya	びゅ byu	びょ byo
ぱ pa	ぴ pi	ぷ pu	ぺ pe	ぽ po	ぴや pya	ぴゅ pyu	ぴょ pyo

Fig. 2. Hiragana chart

Because each syllable has a distinct number of pulls, it is crucial to memorize how the letters Hiragana and Katakana are written. Hiragana and Katakana letters must also be remembered in order, starting with the initial syllables of a, ka, sa, ta, na, ha, ma, ya, ra, wa, wo, n, followed by a, i, u, e, o, ka, ki, ku, ke, ko, and so on in that order, with the vowels.

Japanese words cannot accurately express sounds from other languages because there are occasionally no letters in the language to represent certain sounds. Japanese characters can be used to write foreign words after they have been modified to fit the Japanese pronunciation system. For example, the letter "th" is written with the letters (サ(sa)、シ(shi)、ス(su)、セ(se)、ソ(so)), "ti" is written with the letters チ(chi), sometimes written as the letters テイ (ti) to get closer to the original sound. These English sounds are not found in Japanese, so they are expressed in Katakana.

The function of Hiragana letters also have a variety of functions including writing original Japanese words (not absorbed) and alternative letters if you don't memorize kanji. The purpose of katakana letters is to modify words that come from other languages, names of people, places, and nouns from other countries, names of animals and plants, and words that imitate sounds. Although there are 46 katakana letters, only 45 are utilized in Japanese language since the letter ヲ (wo) is not used.

The letters hiragana and katakana have different forms and have different uses. According to Dedi Sutedi [4], the basics of Japanese linguistics that the letters hiragana and katakana each have 46 letters, these two letters are used to symbolize the same sound. From these letters, some are

developed by adding certain signs to form sounds. Because Japanese letters are distinct from the learning that has previously been acquired, especially Indonesian and English, it is obvious that students who are just beginning to learn Japanese letters would encounter their own challenges. Because you must first comprehend and study the hiragana and katakana characters in order to speak Japanese.

1.4 Digital Media as learning media for hiragana and katakana letters

Danasasmita [5] said that the main problems that learners face when they first learn Japanese include: letter differences, pronunciation differences, differences in Japanese sentence patterns, differences in language use, gender and language politeness, and socio-cultural differences. The fundamental obstacle in learning Japanese is remembering Japanese characters consisting of hiragana, katakana, and kanji. The obstacle is caused by several things, including: First, hiragana and katakana each have 46 basic characters and there are about 2000 kanji used commonly in daily life in Japan. Second, hiragana, katakana, kanji letters have writing rules. In writing hiragana, katakana and kanji, Japanese learners must use the correct order of writing according to the rules. However, there are many similarities between hiragana, katakana and kanji that make it difficult for learners to distinguish and remember them such as the hiragana letter ki (き) and the letter sa (さ), the hiragana letter na (な) and katakana na (ナ). Learners' difficulty in remembering Japanese letters especially hiragana and katakana will affect their writing and reading skills, because if learners cannot remember Japanese letters then they will not be able to pronounce, read and write these letters.

This will frustrate learners and can affect their motivation to learn. Japanese language teachers need to be able to select the best teaching strategy; for example, writing or showing letters one by one in powerpoint slides is thought to be a very tedious learning activity. So, the use of learning media in accordance with technological developments is expected to help teachers in minimizing the obstacles faced by Japanese language learners. The development of information and communication technology, such as Android-based smartphones, currently provides tremendous benefits for the field of education [7].

Currently, there are many Android-based smartphones that offer a variety of applications for independent and individualized learning media. One of the alternative learning media for recognizing Japanese letters, both in terms of writing and pronunciation, is the Memory Hint application provided by the Japan Foundation [8]. Memory Hint application can be used as an alternative as a medium of learning Japanese letters for Japanese language learners [9]. Some studies related to the use of Memory Hint applications can be said to be effective, fun and provide convenience for Japanese language learners in improving letter comprehension. Through animations that demonstrate the relationship between the images and each letter, Japanese learners can practice using this app whenever they want and wherever they want easily.

The Memory Hint application has four types of content: table content, how-to-use content, learning content through illustrations and quiz content. Learners can hear the pronunciation of each letter (hiragana, katakana, and kanji) in the table content. Japanese language learners can learn three things from the table content: about Japanese

writing, about the history of Japanese writing, and about letters (hiragana, katakana, and kanji). There is also a table with these three characters in it.

Information on how to use the Memory Hint program and its content is provided in the how-to-use section. The learning content through illustrations contains sound, which is how to pronounce or read letters and animation of the letters displayed. While the quiz content is used to test the extent of students' understanding of the letters that have been learned. The quiz content consists of 4 (four) quizzes, namely: how to read, choose letters, listen and choose, and similar letters. The quiz content also provides feedback on the answers given by the learners, making it easier to memorize and remember Japanese characters. The use of Memory Hint application, which is a development of science and technology, is able to stimulate the enthusiasm and motivation of Japanese language learners, they can not only understand Japanese characters more easily but also get an optimal learning experience.

Learning experience is an important part of achieving learning goals. In general, learning is defined as a change from not knowing to knowing or from not being able to becoming able, and learning Japanese letters independently using the Memory Hint application, will make it easier for learners to understand and understand compared to just hearing an explanation or just reading a book [10]. Memory Hint application is not the only application that can be used as learning media. The Japan Foundation as an organization that introduces Japanese language and culture abroad, has developed several websites and applications, making it easier for learners to learn Japanese independently and purposefully. The Japan Foundation also offers a course to help you become self-sufficient in reading and writing hiragana, katakana, and kanji. Students in this course will study hiragana, katakana, and kanji while reading and typing simple words and single sounds on a smartphone utilizing interactive learning materials. The presence of learning apps on smartphones greatly supports the self-learning process. However, the selection of the right learning application is also needed in accordance with the learning objectives, and each application has advantages and disadvantages.

1.5 Research Framework

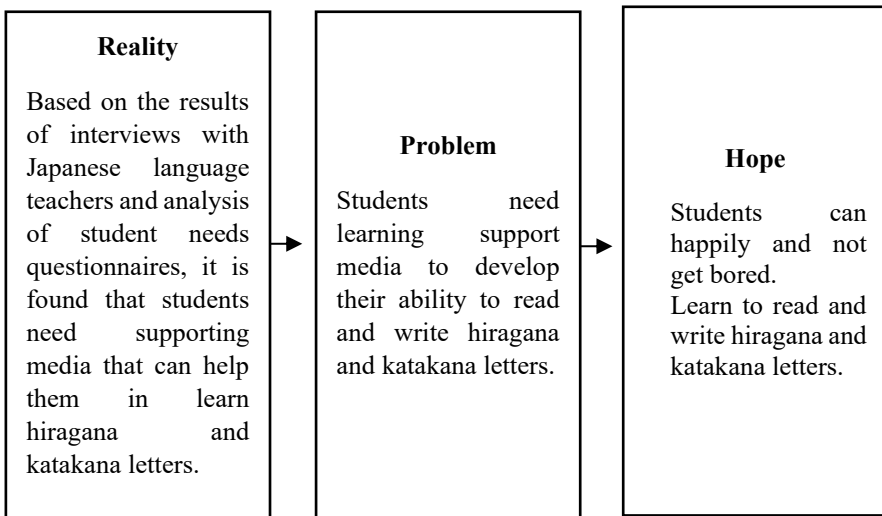


Fig. 3. Research framework

2 Method

This development model can be described by the following flowchart: The method used in this research is descriptive qualitative which is expected to produce research that can be used by students of SMP LAB UNESA [6]. This research was conducted for six months at SMP LAB UNESA. The population was grade 9 students, the sample was grade 9A students.

2.1 Research Procedure

This research consists of several cycles, in each cycle there are four stages, which are planning, action implementation, observation and monitoring, and reflection [11].

1. Planning

At this stage the research team identifies problems and plans ways to overcome how the problem of the order of writing hiragana and katakana (*kakijun*) can be resolved, researchers make alternative action plans to develop and improve student achievement and make an activity implementation plan to overcome existing problems.

2. Action Implementation

Researchers and teams provide guidance to students on how to write and read using digital media (memory hint). Guidance from researchers is expected to improve student achievement.

3. Observation and Monitoring

The researcher and teams observed the learning process of hiragana and katakana letters and also conducted monitoring by observing the interaction between students and teachers.

4. Reflection

The research team considered the findings of observing the hiragana and katakana writing order in this fourth stage (*kakijun*).

2.2 Data Collection Technique

To obtain valid and reliable data, appropriate data collection techniques are needed. The data collection techniques used in this research include:

1. Observation

Observation is the process of recording data derived from student learning activities in the classroom before using memory hints before researchers conduct research by observing all existing events, namely regarding student motivation, participation and achievement during the training process. The type of observation that the researcher conducted was participant observation, meaning that the

researcher was involved in the process of tutoring Japanese language subjects specifically reading and writing hiragana and katakana letters.

2. Documentation

Documentation used in the form of written tests and non-tests, namely documentation in the form of images or photos of the learning process of hiragana and katakana letters when research is carried out.

3. Simple Questionnaire

The type of questionnaire used to analyze the order of writing hiragana and katakana (*kakijun*) in this study is a simple questionnaire, which compiles a list of statements that are in accordance with the data needed by the researcher addressed to respondents to measure student motivation. data needed by researchers addressed to respondents to measure student motivation.

4. Field Notes

Field notes are written records of what is heard, seen, experienced and thought in the context of data collection and reflection on the data in the research of hiragana and katakana writing order (*kakijun*). Field notes as a form of observation used to record qualitative data, such as behavior or activity, special cases, or to describe a process.

2.3 Data Analysis Technique

After the data is collected, the next step is to analyze the data about the order of writing hiragana and katakana (*kakijun*). In analyzing the questionnaire instrument data, the steps are as follows: 1) Preparation, namely checking the completeness of the data, both the number of questionnaires given and the content of the questionnaire itself. 2) Tabulation, namely giving a value score to each question item on each answer. 3) Summing up the score of each question item from all respondents' answers about the order of writing hiragana and katakana (*kakijun*).

3 Results

This chapter will describe the data and research results about:

- a. Learning sequence/implementation of the Semester Learning Plan (*Rencana Pembelajaran Semester (RPS)*)
- b. Learning outcomes (reading and writing) of students before and after using memory hint hiragana and katakana.

3.1 Learning sequence/implementation of the Semester Learning Plan (*Rencana Pembelajaran Semester (RPS)*)

The order of the implementation of the Semester Learning Plan (*Rencana Pembelajaran Semester (RPS)*) is very neatly written and detailed, it can be seen from the determination of the general objectives and specific learning objectives to be achieved by students. Teachers also prepare learning materials according to the syllabus that has been made. Teachers also prepare presentations, assignments, reading materials, and other resources needed but not yet in digital form. The teacher also determines the

teaching materials that will be used in learning, such as textbooks, It appears that the teacher conveys learning materials conventionally (looking at textbooks – reading - writing on the board). The implementation of learning is in accordance with the plan that has been prepared, namely: teaching how to write hiragana letters 【あいうえお】 (きゃぎゃ) then reading hiragana followed by teaching how to write katakana letters (アイウエオ) and practicing reading katakana letters, for example durian fruit ドリアン (dorian).

3.2 Learning outcomes (reading and writing) of students before and after using memory hint hiragana and katakana.

The results of the researcher's observations during the students' learning activities in the classroom before using memory hints, it appears that students write hiragana and katakana letters arbitrarily not in the order of writing/strokes of hiragana and katakana letters. We, the research team, divided the students into groups of 3-4 people in order to observe all the events, namely regarding the students' motivation, participation and ability during the training process. As a result of using digital memory hint hiragana and katakana media, on August 2, students were invited to use the memory hint hiragana letter application (with a time of 20 minutes) followed by the distribution of hiragana letter writing and reading training materials (30 minutes) continued the following week on August 9 using the katakana memory hint application (20 minutes) and continued training in writing and reading katakana letters (30 minutes).

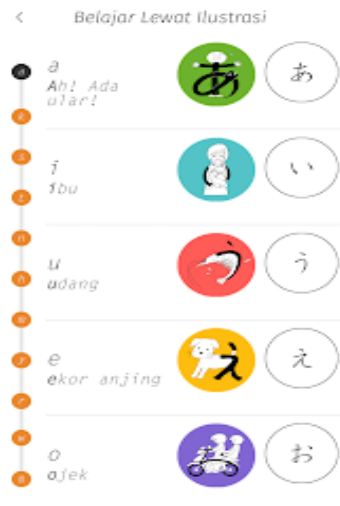


Fig. 4. Memory hint hiragana



Fig. 5. Memory hint katakana



Fig. 6. Activity of writing and reading hiragana and katakana



Fig. 7. Activity of writing and reading hiragana and katakana



Fig. 8. Using memory hint application

4 Conclusion

Based on the analysis above, it can be concluded that the implementation of the Semester Learning Plan (*Rencana Pembelajaran Semester (RPS)*) is very neatly written and detailed, it can be seen from the determination of the general objectives and specific learning objectives to be achieved by students. Teachers create assignments, presentations, reading materials, and other necessary but conventional resources. Before using memory hints, students write hiragana and katakana letters arbitrarily not in the order of writing/strokes of hiragana and katakana letters. While using memory hint application, students are motivated to learn hiragana and katakana letters easily and enjoy participating in the learning process.

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Appendix 1

Research Instrument Questionnaire

A. Instructions for Filling

1. Read the questions carefully before answering.
2. Put a mark (□) on the answer on the right side of each question.
3. Please answer honestly according to your own situation.

*Description: SL : Always SR : Often

KK : Sometimes

TP : Never

1. Does your physical condition affect your understanding of Japanese language learning?
2. Is the interaction between teachers and students good?
3. Do you study the letters hiragana and katakana first before being taught by the teacher?
4. Was the hiragana and katakana teaching method used by the teacher interesting?
5. Do you pay attention to the way hiragana and katakana are written and read?
6. Have you been able to read hiragana and katakana before entering UNESA LAB Junior High School?
7. Do you understand the special characteristics of hiragana and katakana?
8. Do you pay attention to the teacher in class?
9. Do you understand the hiragana and katakana materials given by the teacher?
10. Did the teacher explain quickly in delivering the hiragana and katakana materials?
11. Does the teacher provide a lot of hiragana and katakana material in each meeting?
12. Is the hiragana and katakana material difficult?
13. Do you practice writing and reading hiragana and katakana conventionally every day?
14. Do you practice writing and reading hiragana and katakana digitally every day?
15. Do you do the hiragana and katakana assignments given by the teacher?
16. Do you review the hiragana and katakana you have been taught outside of Japanese class time?
17. Do you ask someone who knows better if there is a letter of hiragana or katakana that you do not know the meaning or how to read?
18. Do you have discussions with friends about hiragana and katakana outside of class time?
19. Did you get good results in the hiragana and katakana test?

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