Elementary Level Kanji Games for Student at High School of Muhammadiyah 2 Sidoarjo

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ABSTRACT

Kanji instruction is frequently perceived by students as difficult and tedious, leading to low motivation and poor comprehension in learning the Japanese language. High School of Muhammadiyah 2 Sidoarjo is committed to addressing this challenge by developing innovative and interactive teaching methods through elementary-level Kanji games. The objectives of this Community service project are: (1) To enhance students' understanding and mastery of elementary-level Kanji, (2) To boost student motivation through enjoyable learning methods, (3) To build students' cognitive and social skills through interactive activities, and (4) Strengthen the relationship between teachers, students, and the school community in the learning process. The methodology employed includes: (1) Development of Kanji Games by creating various engaging and educational Kanji games, such as flashcard games, puzzles, and board games; (2) Classroom Implementation by integrating these Kanji games into the daily curriculum through structured play sessions; and (3) Evaluation and Feedback by conducting routine evaluations to measure the games' effectiveness in improving students' Kanji comprehension and collecting feedback for continuous improvement. The anticipated contributions this community service is: (1) Learning Innovation by introducing an innovative and interactive teaching method that makes learning Kanji more appealing, and (2) Increased Participation by promoting active student engagement in the learning process through fun activities. The benefits of this community service are expected to strengthen students' comprehension of Kanji characters through repetition and application in an enjoyable context, boost students' motivation and interest in learning Japanese, and hone cognitive skills such as memory, logic, and problem-solving.

INTRODUCTION

A. Situation Analysis

Japanese has become a crucial foreign language in this era of globalization, especially given the strengthening bilateral relations between Indonesia and Japan, which necessitates competent communication skills. However, the instruction of the Japanese writing system, particularly Kanji, is frequently perceived by students as challenging, complicated, and tedious. This difficulty often leads to reduced motivation and suboptimal learning outcomes among foreign language learners.

To effectively counteract this perception and enhance student engagement, there is a clear necessity for innovative and appealing instructional methodologies. Educational games focusing on Kanji acquisition present a highly effective and engaging solution to significantly boost students' interest and competency in mastering Kanji characters.

Kanji is structured across three primary proficiency levels: elementary, intermediate, and advanced. According to the Japanese educational standard, the elementary level Kanji is known as *Kyōiku Kanji* (教育漢字), which are the characters taught to students during their primary school years. The Kyōiku Kanji list comprises 1,006 characters in total, distributed across different grade levels, from Grade 1 through Grade 6. Given the

established structure and high volume of characters, developing game-based instruction can provide the frequent, low-stress repetition necessary for memorization, thereby transforming the learning experience from a burdensome task into an enjoyable and effective challenge. This research proposes that integrating such innovative tools can bridge the learning gap experienced by Indonesian students.

Table 1. The following is the distribution of elementary level Kanji (Kyōiku Kanji) per academic year in Japan:

Year	Grade	Number of Kanji
1	Grade 1	80 Kanji
2	Grade 2	160 Kanji
3	Grade 3	200 Kanji
4	Grade 4	200 Kanji
5	Grade 5	185 Kanji
6	Grade 6	181 Kanji

A total of 1,006 Kanji is taught during the first six years of basic education. These Kanji cover various aspects of daily life and have a level of difficulty that corresponds to the cognitive development of students at each educational level.

Below are some examples of Kanji taught in each year:
- *Year 1 (Grade 1):* 一 *(ichi/one),* 二 *(ni/two),* 三 *(san/three),* 日 *(hi/nichi/day/sun),* 本 *(hon/moto/book/origin)*
- *Year 2 (Grade 2):* 学 *(gaku/study),* 校 *(kō/school),* 年 *(nen/toshi/year),* 川 *(kawa/river),* 花 *(hana/flower)*
- *Year 3 (Grade 3):* 海 *(umi/sea),* 空 *(sora/sky),* 音 *(oto/on/sound),* 町 *(machi/town),* 家 *(ie/ka/house)*
- *Year 4 (Grade 4):* 直 *(nao/choku/straight),* 短 *(mijika/tan/short),* 植 *(u/shoku/plant),* 泳 *(oyo/ei/swim),* 漢 *(kan/China)*
- *Year 5 (Grade 5):* 彼 *(kare/ka/he/that),* 商 *(shō/commerce),* 族 *(zoku/family),* 温 *(atata/on/warm),* 争 *(araso/sō/fight)*
- *Year 6 (Grade 6):* 喜 *(yoroko/ki/joy),* 謝 *(sha/thank),* 選 *(era/sen/select),* 優 *(yū/yasa/excellent),* 良 *(yoi/ryō/good)*

Mastering these basic Kanji is crucial as they form the foundation for reading and writing abilities in Japanese. After achieving proficiency in these basic characters, students will be better prepared to learn more complex Kanji at higher educational levels. Effective Learning Methods for Elementary Kanji is learning elementary-level Kanji can be a significant challenge for many students due to the characters' complexity and sheer number.

Here are some effective methods for learning basic Kanji:

- Using Mnemonics: Mnemonics are memory aids that use creative associations to help remember the form and meaning of Kanji. Examples include creating stories or images that link the Kanji shape to its meaning.
- Utilizing Flashcards: Flashcards can be used for memorizing Kanji. One side of the card contains the Kanji, and the other side contains its meaning and reading(s). These flashcards can be physical or digital, accessed via applications like Anki or Quizlet.
- Kanji Radicals: Kanji consists of components called radicals. Understanding and memorizing basic radicals significantly aids in learning more complex Kanji. Learning radicals also helps in guessing the meaning and pronunciation of new Kanji.
- Writing Practice: Writing Kanji repeatedly helps in memorizing the form and stroke order (*kakusuu*). This practice also helps in understanding the Kanji structure and how each stroke forms the complete character.
- Contextual Learning: Learning Kanji within the context of sentences or phrases helps students understand how the characters are used practically. Reading simple texts that use basic Kanji can help in recall and comprehension of their usage.
- Digital Applications and Resources: Applications like Wani Kani, Kanji Study, or Duolingo offer structured and interactive Kanji learning programs. These digital resources are often equipped with features like testing, flashcards, and progress analysis.
- Reading and Writing: Start by reading texts that contain basic Kanji, such as children's books or beginner-specific learning materials. Writing journals or daily notes using the learned Kanji can also reinforce memory.
- Using Textbooks and Official Materials: The "Minna no Nihongo" textbook series typically covers basic Kanji instruction systematically and structurally. The book also provides exercises and practice questions.
- Joining Classes or Study Groups: Learning in a group or class can provide additional motivation and opportunities for discussion and asking questions. Instructors or clashing School often can help explain difficult concepts.
- Spaced Repetition: Using the spaced repetition method to recall Kanji. This involves reviewing Kanji at increasingly longer time intervals after each successful recall. Applications like Anki use this technique to help strengthen memory.

By using a combination of the methods above, students can build a strong foundation in Kanji learning and improve their overall Japanese language ability.

General Information about High School of Muhammadiyah 2 Sidoarjo Highschool
High School of Muhammadiyah 2 Sidoarjo is a private senior high school under the auspices of the Muhammadiyah organization in Sidoarjo, East Java. The school is known for its commitment to providing quality education based on Islamic values. Below is some general information:

- Vision and Mission: High School of Muhammadiyah 2 Sidoarjo's vision is to produce a generation with noble character, outstanding achievements, and a global perspective. Its mission includes improving educational quality, instilling Islamic values, and developing students' skills in various fields.
- Curriculum: The school implements the national curriculum enriched with local content and Islamic teachings. This curriculum is designed to produce graduates who are not only academically bright but also possess strong character and relevant life skills.
- Facilities: High School of Muhammadiyah 2 Sidoarjo is equipped with various facilities to support the teaching and learning process. Available facilities include science laboratories, computer labs, a library, a mosque, sports fields, and comfortable classrooms.
- Extracurricular Activities: The school offers a variety of extracurricular activities to develop students' talents and interests outside of academics. Popular extracurriculars include scouting, arts, sports, robotics, and an English club.
- Achievements: High School of Muhammadiyah 2 Sidoarjo often records achievements at both local and national levels, in academic and non-academic fields. These. achievements reflect the quality of education provided and the dedication of the students and teaching staff.
- Religious Activities: As a school grounded in Islamic values, High School of Muhammadiyah 2 Sidoarjo organizes various religious activities such as recitation sessions, congregational prayers, observance of Islamic holidays, and other activities aimed at enhancing students' faith and piety.
- Cooperation and Networking: The school also establishes partnerships with various institutions, both domestic and international, to enhance the quality of education and provide broader opportunities for students' development.
- New Student Admissions: The new student admission process at High School of Muhammadiyah 2 Sidoarjo is typically conducted every new academic year, following procedures and requirements set by the school. Further information regarding registration can be obtained through the official website or by visiting the school directly.

B. Priority Partner Issues

Based on the description above, the priority issues for the partner (High School of Muhammadiyah 2 Sidoarjo) are:

- How to implement elementary level Kanji games for students at High School of Muhammadiyah 2 Sidoarjo.
- What is the student response to the elementary level Kanji games implemented at High School of Muhammadiyah 2 Sidoarjo.

RESEARCH METHOD
Solution and Target Outcomes
Solution
Kanji instruction at High School of Muhammadiyah 2 Sidoarjo faces several challenges, such as low student motivation and difficulty memorizing Kanji forms and meanings.

To address these challenges, this community service program proposes a solution in the form of interactive and enjoyable Kanji games.

The proposed solutions are: to enhance students' understanding and mastery of elementary-level Kanji, to boost student motivation through enjoyable learning methods, to build students' cognitive and social skills through interactive activities, and to strengthen the relationship between teachers, students, and the school community in the learning process.

The implementation method consists of several stages:

Stage 1: Kanji Game Development This involves creating various types of appealing and educational Kanji games, such as flashcard games, puzzles, board games, and digital applications. The implementation step involves the community service team collaborating with teachers to develop and pilot the Kanji games.

Stage 2: Classroom Implementation This involves integrating the Kanji games into the daily curriculum through structured play sessions. In this step, the community service team implements the elementary-level Kanji games during learning sessions.

Stage 3: Evaluation and Feedback This involves conducting routine evaluations to measure the games' effectiveness in improving students' Kanji comprehension and gathering feedback for continuous improvement. The steps taken include using pre- and post-program tests, and collecting feedback from students and teachers through questionnaires and discussions. The evaluation and feedback will be collected using a Google Form filled out by the student participants of the training from High School of Muhammadiyah 2 Sidoarjo.

From the stages described above, students are expected to increase their active participation in the learning process through fun activities. Furthermore, through this learning innovation, community service team can introduce innovative and interactive teaching methods, making learning Kanji more engaging. As for the students, they can improve social interaction and cooperation through group games.

To achieve the previously outlined goals, students need to be provided with knowledge about basic Kanji. To begin learning Kanji, it is beneficial to become familiar with the "Kanji Kentei" or "Kyōiku Kanji," which is the series of characters taught in Japanese elementary schools.

Some examples of commonly used basic Kanji include:

- 人 (*hito*): Meaning "person." Example usage: 人口 (*jinkō*) meaning "population."
- 水 (*mizu*): Meaning "water." Example usage: 水曜日 (*suiyōbi*) meaning "Wednesday" (water day).
- 火 (*hi*): Meaning "fire." Example usage: 火山 (*kazan*) meaning "volcano."
- 木 (*ki*): Meaning "tree" or "wood." Example usage: 木曜日 (*mokuyōbi*) meaning "Thursday" (tree day).
- 山 (*yama*): Meaning "mountain." Example usage: 富士山 (*Fujisan*) referring to Mount Fuji.

There is hundreds of other basic Kanji introduced in Japanese elementary schools, and understanding them is a crucial step in gaining a deeper comprehension of the Japanese

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language. Each academic year has a specific set of Kanji for students to learn: (1) Grade 1: 80 Kanji; (2) Grade 2: 160 Kanji, (3) Grade 3: 200 Kanji, (4) Grade 4: 200 Kanji, (5) Grade 5: 185 Kanji, and (6) Grade 6: 181 Kanji

Target Outcomes
Based on the agreement of the community service team, the target outcomes to be achieved are as follows:
Kanji Game Development: This is important so that students can master elementary-level Kanji. The desired output is a set of Kanji games (cards, board games, digital application) that can be used by students and teachers in the learning process.
Increased Student Comprehension: This involves the improvement of students' understanding and mastery of elementary-level Kanji through the use of the games. As evaluation material, the report on student learning outcomes before and after the Kanji game implementation needs to demonstrate an improvement in Kanji mastery.
Publication and Dissemination: This is necessary to publicize the program results and disseminate them to the broader educational community, taking the form of a scientific article or report published in an educational journal or other media, and presentations at educational seminars or conferences.

The plan for activities executed by the community service team in collaboration with the partner can be outlined with the following steps:

A. Proposed Approach to Solve the Problems
1. Preparation
Observation of the community service Location: Initial assessment and familiarity with the partner site.
Education and Training Materials:
1) Socialization of the Universitas Negeri Surabaya 2024 Community Service-Based Learning Program.
2) Methodological approach for community service.
2. Implementation
The strategy used for problem-solving in this service project utilizes the following methods:

- Brief Lecture: A short lecture on the history of Kanji, Kanji learning, and its various types.
- Question and Answer: Providing a Q&A session allows students to ask anything related to Kanji, as proficiency in Kanji is an essential competency for anyone wishing to deeply engage with Japanese reading and writing.
- Demonstration and Practice: Demonstration and practice are carried out by writing Kanji on the whiteboard to ensure students understand the proper Kanji stroke order and to increase their interest in the characters.
- Evaluation: Evaluation is necessary at the end of any activity. Evaluation is performed through direct observation while participants are engaged in activities during the training and afterward, which helps determine if there is an improvement in Kanji reading and writing ability.

B. Activity Plan

The planned activities or steps to be taken are as follows:

- Collaborating with the partner to develop a training plan, which includes determining the materials, scheduling, training evaluation, post-community service mentoring (both online and offline), and the division of tasks and roles between the partner and the community service team.
- Evaluating the program's success and the participants' response to the community service implementation.
- Generally, the evaluation of the community service program's success covers: (a) consistency between the planned and executed activities, (b) the improvement of participants' understanding and ability, (c) the effectiveness of the community service implementation, and (d) the participants' level of interest in the community service.

Specific evaluation covers the improvement of students' understanding of their reading and writing abilities in Kanji. The training participants' responses are gathered via a questionnaire, and the aspects assessed include:

- The importance of conducting training with similar material.
- The ease of understanding the material presented by the instructor.
- The benefit of the training material for participants.
- Satisfaction with the training location and facilities.
- The adequacy of the training materials.
- Whether the training material was new information.
- The need for advanced material in future training sessions.
- Whether the training improved participants' comprehension abilities.

RESULTS AND DISCUSSION

1. Elementary Level Kanji Games for Students at High School of Muhammadiyah 2 Sidoarjo

This Community service (community service) activity was held on June 16, 2024, from 08:00 AM to 11:00 AM WIB. [The text does not specify the number of students who attended].

The session began by reviewing the students' ability to read Hiragana and Katakana. Following this, the Kanji Guessing Game based on Stroke Count was initiated. Using a PowerPoint presentation (PPT), students were asked to guess the number of strokes (kakusuu) of the Kanji displayed. The students were very enthusiastic, answering collectively and loudly, although their answers were sometimes incorrect.

2. Student Response to the Elementary Level Kanji Games for Students at High School of Muhammadiyah 2 Sidoarjo

Table 2. Student Options Response to the Elementary Level Kanji Games for Students at High School of Muhammadiyah 2 Sidoarjo

A. Yes, I have (learned it) = 14.3%
B. Yes, briefly introduced = 32.1%
C. Never learned but aware of it = 42.9%
D. d. Never learned it at all = 10.7%

A. Yes, I experience difficulties = 53.6%
B. I experience sufficient difficulty = 39.3%
C. Sometimes I experience difficulties = 7.1%
D. I never experience difficulties = 0%

A. Yes, I have learned it
B. Yes, briefly introduced
C. Never learned but aware of it
D. Never learned it

A. Yes, interested
B. Sufficiently interested
C. Less interested
D. Not interested

A. Yes, inspired
B. Sufficiently inspired
C. Less inspired
D. Not inspired

A. Yes, motivated
B. Sufficiently motivated
C. Less motivated
D. Disagree with being motivated

CONCLUSION

Based on the analysis conducted, the elementary level Kanji games for students at High School of Muhammadiyah 2 Sidoarjo show the following results:

1. The elementary level Kanji games for students at High School of Muhammadiyah 2 Sidoarjo are highly effective in attracting students' interest in learning Kanji.
2. The student response to the elementary level Kanji games is very positive (very good). This is evidenced by the fact that all students in the class answered questions regarding the Kanji stroke count (kakusuu) very well.

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