

Game-Based Learning Model Development "Aisatsu-Go" in Improving Japanese Vocabulary Comprehension for First-Year Class of SMAN 7 Malang

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Abstract. This study aims to explore the development of learning media to improve the understanding of Japanese vocabulary. This research involved 136 highschooler students as the respondents of the game-based "Aisatsu-Go" implementation in Japanese subjects. The results of the research are covered in 2 main points, including 1) based on the calculation of the value of the validation of learning media, it was found a result of 3.5, which is "valid". Meanwhile, based on the calculation of the value of the validation of learning materials, it was found that the result was 3, which is "valid", and 2) the number of students who scored below 75 was 23 students, while the number of students who scored above 75 was 136 students. So, the percentage of completeness value is 85% which categorized as "good".

Keywords: development, learning media, Aisatsu-Go, Japanese language, vocabulary.

1 Introduction

In learning activities, many important components form the basis of all teaching and learning processes. One of these components is learning media. Learning media is interpreted as a communication tool used to convey the communicator's message to the communicant [1]. The message conveyed can be in the form of learning materials, assignments, or forms of verbal or textual communication between teachers and students.

As the holder of an important role in teaching and learning activities, learning media consists of special categories. These categories include verbal presentations, graphic presentations, still images, motion pictures, sound recordings, programmed teaching, and simulations [2]. The eight categories are classified based on the physical characteristics they have.

Of the many types of learning media, teachers are allowed to choose the appropriate media. Determination of media is needed by considering the objectives, materials, abilities, and characteristics of students [3]. The characteristics of each student are also influenced by their

learning style. Learning styles are divided into three types, visual, auditory, and kinesthetic [4]. One student can have a different learning style from other students. Therefore, the selected learning media should be able to cover the entire learning style of each student.

In the kinesthetic learning style, students tend to move. Movements performed by learners with a kinesthetic learning style can be in the form of snapping fingers, playing writing instruments, walking, and others. This is done to increase focus so that learning material can be absorbed properly.

One of the learning media that is in line with learning styles, especially kinesthetic learning styles, is game-based learning media. Game-based learning media is defined as media that utilizes games as a means of delivering material or forms of communication to students. In games, all senses including visual, audio, to kinesthetic senses are needed for students. Game-based learning can be done in all subjects in school. Japanese language lessons are also one of the lessons that can use games as the main medium.

Iris Indira Murti and Rusmiyati in their research entitled Development of HOT (Hanging on A Tree) Game Media for Mastery of Japanese Vocabulary in the Watashi No Kazoku Theme for Class X Students IBB SMAN 3 Surabaya explain that based on the results of interviews on May 5 2019, it is known that students still experience difficulties in understanding the vocabulary of family members in family members. Therefore, the use of HOT (Hanging on a Tree) game media to overcome students' difficulties in understanding the vocabulary of family members. HOT (Hanging on a Tree) game media is a game based on a family chart with the aim of making students better understand the vocabulary of family members and counting in family members. This study aims to determine the feasibility of HOT (Hanging on a Tree) game media and to find out students' responses to HOT (Hanging on a Tree) game media. This research uses Borg & Gall's R&D (Research & Development) method. The subjects of this study were students of class X IBB MIPA Negeri 3 Surabaya in the product trial stage, and students X IBB SMA Negeri 3 Surabaya in the trial use stage. From this study, concluded that game-based learning can be categorized as good, feasible to use, and get positive feedback from students [5].

The difference between Iris Indira Murti and Rusmiyati's research with this research is that this research focuses on developing a game-based learning media called *Aisatsu-Go*. This game is used in learning Japanese with *aisatsu*: expressions in class for students in grades X.1-X.6 SMAN 7 Malang. Besides, the aim of this study is to explore the development of *Aisatsu-Go* as learning media to improve the understanding of Japanese vocabulary.

2 Research Method

In this study, a quantitative method with a descriptive approach was used. The quantitative method is a research method that uses valid instruments and appropriate statistical analysis so that the research results are in line with the actual conditions [6]. While the descriptive approach is a research approach that describes the translation of the data.

The theory used in this research is the theory of 4-D model development by Thiagarajan. Thiagarajan ranks his research and development methods into three orders, namely define, design, develop, and disseminate [7]. In the define stage, an analysis of the learning needs is carried out from the student's perspective to achieve the learning objectives. At this stage, the needs analysis is carried out by observation. At the design stage, the "Aisatsu-Go" media game

was designed which was adjusted to the results obtained at the define stage. At the development stage, the Aisatsu-Go media was developed based on advice and input from experts. After development, the media was tested on students in grades X.1 to X.6 of SMAN 7 Malang in the 2022/2023 academic year.

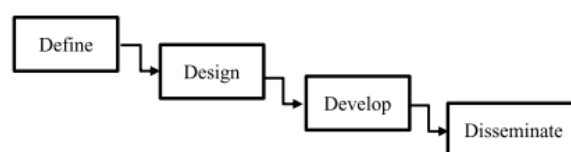


Fig. 1. Thiagarajan 4-D development model series

Test the validity of the Aisatsu-Go media using a validation questionnaire sheet. The criteria for the validation score of learning media according to Khabibah are as follows [8]:

Table 1. Learning media validation score criteria

Interval	Criteria
$1.00 \leq x < 2.00$	Not Valid
$2.00 \leq x < 3.00$	Less Valid
$3.00 \leq x < 4.00$	Valid
$4.00 \leq x < 5.00$	Very Valid

This research reached the disseminate stage, but it was only distributed to first class students of SMAN 7 Malang and not distributed to the public because of limited time. The data used in this study are the assessment of learning materials and media by experts, as well as the scores of quiz work by students.

3 Result and Discussion

The development of Aisatsu-Go game-based media from the define stage to the disseminate stage will be described as follows.

3.1 Define

The define stage is a needs analysis was carried out as a guide to the next stage. In this study, define are applied in learning Japanese in class X.1-X.6 SMAN 7 Malang. Needs analysis is carried out using the observation method.

Based on the analysis, information was obtained that teachers always use interesting and varied learning media, so that they can foster student interest in learning. According to Japanese language teachers, this is an effort to attract students to enjoy learning Japanese. So, Japanese language specialization subjects can get more students. The advantage of this learning is that students can be actively involved during learning, and learning is not always teacher-centric. In addition, the teacher also made a guide book Let's Learn Japanese Volume I which contains a collection of materials and assignments for class X students. However, the variety of learning media used is still experiencing difficulties. The difficulty is that the material being taught cannot be conveyed properly to students. This factor is supported by the

fact that in class X Japanese learning, books other than notebooks are not used as learning resources. The manual made by the teacher is also not used during learning. Even so, the material presented is still by the book. The result of this problem is the non-achievement of the learning objectives as a whole.

Therefore, it can be concluded that in Japanese teaching and learning activities, teachers and students expect varied learning media so that they are not bored during class hours. In addition to fun learning media, media are also needed that can help students understand all the material being taught so that learning objectives can be realized properly.

Based on the results of the analysis, this study formulates a game-based learning media named Aisatsu-Go for Japanese language subjects on aisatsu (classroom instruction) material. This game combines video and outdoor activities.

Before doing the design of learning media, learning planning is done first. This is important to do because good planning will affect the target to be achieved. The plan includes learning objectives, materials, and also the learning flow.

3.1.1 Learning Objectives

Learning objectives are the main basis when carrying out teaching and learning activities. Learning objectives are used in a learning activity, to achieve certain predetermined targets [9]. Learning objectives are determined based on core competencies, basic competencies, and also GPA. In learning aisatsu (instruction in the classroom), the learning objective is that students can understand and identify the types of aisatsu instruction in the classroom.

3.1.2 Learning Material

The learning materials were taken from the book Let's Learn Japanese Volume I, which was compiled by Ika Maulida Kusuma Dewi, S.S and Iva Musrifatin, S.Pd. In addition, the content of the material is also developed and grouped as written in the following table.

Table 2. Aisatsu vocabulary instruction in class

No.	Cathegory	Vocabulary
1.	Invitation	Hajimemashou
		Owarimashou
		Yasumimashou
		Utaimashou
		Kaerimashou
2.	Request	Yonde kudasai
		Mite kudasai
		Kiite kudasai
		Kaite kudasai
		Suwatte kudasai
3.	Permission	Toire ii desuka?
		Borupen ii desuka?
		Shashin ii desuka?
		No-to ii desuka?
		Keshigomu ii desuka?

		Wakarimasuka?
		- Hai, wakarimashita
		- Iie, wakarimasen
4.	Conversation	Shitsumon ga arimasuka?
		- Hai, arimasu
		- Iie, arimasen

3.2 Design

The design stage is prepared to test the effectiveness of the teaching materials that have been developed, selection of learning media, selection of formats, and then designing teaching materials that are tailored to the basic competencies to be achieved. Aisatsu-Go media design is planned for use in Japanese class X subjects at SMAN 7 Malang. Media planning consists of several stages. The first stage is to group the materials. After that, make an animated video that describes the condition of each instruction in the class. After all the videos are finished, the next step is to upload the videos to Google Drive. After all the videos have been uploaded successfully, each video will be created with a QR code to be scanned by students.

3.3 Development

The development stage at the stage of expert validation and field trials. Validation was carried out by involving 3 validators. the first thing to do is media validation by experts. The validation process was carried out by two experts, namely a Japanese language teacher at SMAN 7 Malang and a Japanese language education lecturer at Brawijaya University. The results of media validation and learning materials will be presented in the following two tables:

Table 2. Learning media validation results

	Question Number-															Total Score
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Validator Score	4	3	4	4	3	3	3	4	4	4	3	3	4	4	3	53
Average																3.5

Table 3. Learning material validation results

	Question Number-							Total Score
	1	2	3	4	5	6	7	
Validator Score	3	3	3	3	3	3	3	21
Average								3

Based on the calculation of the value of the validation of learning media, it was found a result of 3.5, which based on the criteria for calculating the score, the number shows the "valid" criteria. Meanwhile, based on the calculation of the value of the validation of learning

materials, it was found that the result was 3, which based on the criteria for calculating the score, the number indicated the "valid" criteria.

In addition, at this stage also made improvements to the media obtained from advice and input from experts. The advice from experts for the development of Aisatsu-Go media is that the yellow color in the QR code is replaced with a darker color, as well as adding other instructions to make it more complete. The results of the improvements made can be seen in the following pictures:



Fig. 2. QR code before color change



Fig. 3. QR code after color change

3.4 Disseminate

The disseminate stage is stage which aims to disseminate the results of learning media planning and see the feedback. The implementation of Aisatsu-Go game-based learning media is carried out to first class of SMAN 7 Malang to get to know the Aisatsu vocabulary comprehension. This stage aims to examine how the Aisatsu-Go media is used as a form of media development in learning with instructional materials in the classroom. Media used in class X.1-X.6. At the end of the lesson, questions are provided students must do that to test

how students understand after getting material with game media. Data on the value of working on questions by students will be displayed in the following tables:

Table 4. Student score data

Student Total	Lowest Score	Highest Score	Average
160	40	100	88

The number of students who scored below 75 was 23 students, while the number of students who scored above 75 was 136 students. So, the percentage of completeness value is 85%. Thus, it can be concluded that the Aisatsu-Go game-based learning media can be categorized as "good" in terms of the percentage of completeness scores and the overall average score.

4 Conclusion

This research was conducted to examine the development of game-based learning media named Aisatsu-Go in class X SMAN 7 Malang. From the findings, it is known that the Aisatsu-Go media can be categorized as "valid" as a learning medium. In addition, 85% of the total 160 students can understand the material well with the help of the game. So, the Aisatsu-Go game is also included in the "good" category in the learning media.

Learning media is the most essential thing to prepare before starting teaching and learning activities. The suitability of the media with students' conditions and class conditions will affect students' ability to understand the material while enjoying the learning process. Therefore, educators should use good learning media and can help students understand the material as a whole while growing their motivation to learn.

For future researchers, the advice that can be given is an understanding of the importance of media development and its application in learning life. other than that, the maximum use of time so that the learning media can reach the disseminate stage such as Thiagarajan's intact theory.

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