

Students' Perceptions of The Use of Japanese Language Learning Media Based on "QR Game" on The Implementation of The Independent Curriculum Class X at SMAN 7 Malang

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Abstract. In this digital era, technology should be utilized as much as possible to accommodate students' needs and learning styles. Using the descriptive quantitative method, this study aims to analyze students' perceptions of Japanese language learning with barcode scanner media as a learning tool for implementing fun learning. The sample of this study was class X at SMAN 7 Malang, and data collection was conducted using a closed questionnaire with a simple random sampling technique. The research steps include preparation (initial observation, literature study, and media making), implementation, and analysis. Based on the test results, it can be concluded that there is an increase in students' interest and understanding of Japanese language learning after the application of game-based learning using barcode scanner media learning.

Keywords: Implementation of The Independent Curriculum, QR game, Students' Perceptions.

1 Introduction

Crystal [1] The development of globalization makes each individual connect with others through accepted culture and technology. Moreover, the Japanese language has had a considerable influence over time, and its interest is increasing. Japanese is one of the foreign languages included in high school learning, including at SMA Negeri 7 Malang. Japanese is one of the subjects that is considered difficult, especially by students who are not interested in Japanese. This is a challenge for Japanese language teachers. How to increase student interest, primarily since class X at SMAN 7 Malang has implemented IKM or Implementation of Merdeka Curriculum. With IKM, students can choose subjects they like and are interested in. So the teacher must think of ways to make learning fun to attract students' interest.

The education system in Indonesia often undergoes curriculum changes. Ujang Cepi Barlian [4] said that the curriculum is the "spirit" of education that must be evaluated innovatively, dynamically, and periodically by the times and science and technology, the competencies needed by society and graduate users. The rapid development of science and

technology no longer allows the world of education to linger within the "comfort zone" of the applicable curriculum.

Ujang Cepi Barlian [4] also explained that this change aims to ensure a better school learning process. The 2013 curriculum change is a continuation of the 2006 curriculum so that the components in the 2013 curriculum are the development of the previous curriculum. In order to improve the quality of education in 2005, the government issued Indonesian Regulation 19 of 2005 concerning National Education Standards. This regulation is the government's effort to improve the quality of education in Indonesia.

Ramadan [5] developed the Merdeka curriculum as a more flexible framework while focusing on essential materials and developing learners' characters and competencies. The main characteristics of this curriculum that support learning recovery are (1) Project-based learning for soft skills and character development according to the Pancasila learner profile (2) Focus on essential material so that there is sufficient time for in-depth learning for basic competencies such as literacy and numeracy.

In this era of digital development, technology must be utilized as much as possible to accommodate students' needs and learning styles. The role of technology cannot be separated from human life, including education. High school students are a generation that cannot be separated from gadgets or smartphones. So one way to attract their interest and motivation is to use smartphones as learning media. The development of science and technology causes the learning process to be more applicable and interesting to improve the quality of education. C.-H. Chen [2] New and appropriate learning innovations and methods will help the student understand the process so that students can apply the knowledge they gain in learning. Therefore, efforts to renew or innovate learning are needed by teachers so that teaching and learning activities become interesting and can bring students to participate in learning actively.

The observation shows that the Japanese language learning process is mostly conducted in the classroom. Although the teacher has prepared interactive learning methods in the classroom, many students feel bored with the classroom atmosphere. The unfavorable conditions and lack of learning media cause students to be less interested in participating in learning, so students lack understanding and application of the concept of the subject matter.

Based on the description above, it is necessary to apply gamification to learning. Takdir [3] said that using gamification to increase motivation and interest is an important development in learning. In this research, learning is done by using design techniques from the pokemon-go game. Students are divided into groups invited to adventure in the school environment looking for QR codes that have been distributed. Then each student scans the results of the QR code obtained, listens to the material, and analyzes it.

The purpose of this research is to create fun learning for students in order to increase students' interest and motivation in Japanese language subjects. Harjanta & Herlambang [2] characterized games that can motivate students and make learning more popular with students. Learning using barcode scanner media is expected to increase students' interest and motivation to learn Japanese. Y.-L. Chen & Hsu [2] one that can increase students' interest and understanding of science concepts is game-based learning. Games are structured activities that aim to entertain and can be used as a means of education.

According to Pike in Melvin L [3], Silberman, in his book *Achieve Learning* says that memory will increase by adding visual media to learning, from 14 to 38%. Thanks to both delivery systems, the message will become more powerful when teaching has both auditory and visual dimensions.

Barcode or QR Code is a matrix code in the two-dimensional form developed by the Japanese company Denso-Wave in 1994 [1]. In the digital era, the QR Code is widely used in

several institutions, even though it continues to grow, such as the Hong Kong Institute of Education and Bath University. It is also used personally or administratively [1]. According to Nurning [1], QR codes can increase motivation and attract students to foreign language learning. Susono and Shimomura [1] argue about the great potential of the QR Code in its application in the classroom, even to the level of assessment. This expert opinion can develop it into learning media, especially history subjects. The results of research by Guntur Firmansyah and Didik Harianto [1] show that the QR Code is feasible and can be used to increase learning motivation and the basic skills of playing student table tennis. Ariska and Jasman [1] state that educational QR codes have been widely used to label school assets. According to Rochman, Rahajana, and Taufik [1], the QR Code determines the validity of the study plan and result cards. According to Nurseto [1], learning media as a medium for channeling messages and learning information that is well designed will help achieve educational goals, while according to the results of Halidi's research [1] that learning media affects learning motivation and learning outcomes. Narayana [1] argues that the QR Code provides many solutions to the attitude to be studied. This opinion allows for various trials or experiments, such as good school practices.

2 Method

This research was conducted at SMAN 7 Malang using a quantitative descriptive method. The subjects in Japanese language learning with barcode scanner media were class X students in the 2022/2023 academic year, which amounted to 99 students. At the same time, the object of this research is barcode scanner media.

The application of barcode scanner media uses several stages, including the first stage of the literature study, to find supporting theories relevant to the research. The second stage is designing supporting tools, such as making barcodes that contain videos of learning materials about various kinds of instructions in class in Japanese. The third stage is the implementation or trial use of barcode scanner media. This stage includes the selection of research subjects, documentation of activities, and reflection.

From the above stages, it should be noted that in implementing a gamification system, users must have reciprocity, challenges, and rules. The gamification system also provides levels, time limits, teamwork, virtual goods, rewards, and competition between participants. In addition, points are the core of designing a gamification model.

Data collection was carried out by distributing closed questionnaires with a simple random sampling technique totaling 84 students who filled out the questionnaire. The questionnaire contains 12 statement items with answers using a scale of 1-4. To test whether the questionnaire is feasible to be given to the sample group, instrument validation is first carried out by experts.

The influence of Japanese language learning using barcode scanner media is divided into two aspects, namely learning media and gamification, then each aspect is divided into several indicators as follows:

Table.1 Aspects and Indicators

Aspects	Indicators
1.	The influence of media in arousing students' enthusiasm or enthusiasm Learning media that students want
Learning Media	The effect of media on student understanding The effect of technology-based learning media on student enthusiasm and engagement
2.	The effect of game-based learning on student motivation Fun learning with game-based learning Effect of gamification on student engagement
Game-based Learning	

From the two aspects and seven indicators above, 12 statement items were made as the content of the student perception questionnaire. After experts validated the 12 statement items, the sample group distributed the questionnaire online for the second validation. After going through improvements until it is feasible, the student perception questionnaire is then distributed to the sample group as data that will be used later.

Table. 2 Questionnaire Statement Items

Aspects	Items
Learning Media	1. Learning using barcode scanner media makes me enthusiastic about learning Japanese. 2. Learning using a barcode scanner is following the learning I want 3. Learning by using a barcode scanner has improved my Japanese comprehension. 4. Learning using barcode scanner media helps me better understand the material. 5. Learning Japanese with barcode scanner media makes the material easy to remember. 6. I can find examples of classroom instructions in Japanese daily through learning with barcode scanner media.

	7. I become more excited and active when learning using barcode scanner media like this.
Game-based Learning	8. The use of barcode scanner media with a game-based learning method in learning makes me more motivated to learn Japanese.
	9. I am happy and entertained when learning Japanese using the game-based learning method.
	10. Learning Japanese using barcode scanner game media is very interesting and fun.
	11. I enjoy working on material questions when learning using the barcode scanner game media.
	12. After learning the barcode scanner game, I am interested in learning more about Japanese.

3 Results and Discussions

3.1 Results

This research was conducted on three X classes at SMAN 7 Malang, namely X-3, X-4, and X-5, with 99 students. After the research was conducted, a questionnaire containing 12 statement items using google form media was distributed to the three classes.

Table.3 Results from Learning Media Aspects

Items		Scale			
		1	2	3	4
1.	Learning using barcode scanner media makes me enthusiastic about learning Japanese.	1 (1.2%)	4 (4.8%)	40 (47.6%)	39 (46.4%)
2.	Learning using a barcode scanner is following the learning I want	2 (2.4%)	7 (8.3%)	47 (56%)	28 (33.3%)
3.	Learning by using a barcode scanner has improved my Japanese comprehension.	0 (0%)	5 (6%)	47 (56%)	32 (38.1%)
4.	Learning using barcode scanner media helps me better understand the material	0 (0%)	4 (4.8%)	48 (57.1%)	32 (38.1%)
5.	Learning Japanese with barcode scanner media makes the material easy to remember	0 (0%)	9 (10.7%)	50 (59.5%)	25 (29.8%)
6.	I can find examples of classroom instructions in Japanese daily through learning with barcode scanner media.	1 (1.2%)	4 (4.8%)	47 (56%)	32 (38.1%)
7.	I become more excited and active when learning using barcode scanner media like this	0 (0%)	5 (6%)	37 (44%)	42 (50%)

Based on the questionnaire responses above, learning Japanese using technology-based media such as barcode scanners shows positive results. Of all the statement items on the aspect of the influence of learning media, more than 80% of respondents who are students answered on a scale of 3-4, which means they agree strongly.

In the first item, 94% of students agreed that barcode scanner media makes them enthusiastic about learning. In the second item, 89.3% of students agreed that technology-based learning media, such as barcode scanners, is the learning they want. In the third item, 94.1% of students agreed that learning by using barcode scanner media helps their Japanese comprehension improve. In the fourth item, 95.2% of students agreed that learning using barcode scanner media helps them to understand the material better. In the fifth item, 89.3% of students agreed that using barcode scanner media makes the learning material easy to remember.

In the sixth item, 94.1% of students agreed that by using barcode scanner media, students could find various examples of instructions in class in daily activities. In the seventh item, 94% of students agreed that they became more active and excited when learning using barcode scanner media.

Table.4 Results from Game-Based Learning Aspects

	Items	Scale			
		1	2	3	4
8.	The use of barcode scanner media with a game-based learning method in learning makes me more motivated to learn Japanese.	1 (2.4%)	6 (7.1%)	45 (53.6%)	31 (36.9%)
9.	I am happy and entertained when learning Japanese using the game-based learning method.	1 (1.2%)	1 (1.2%)	39 (46.4%)	43 (51.2%)
10.	Learning Japanese using barcode scanner game media is very interesting and fun.	1 (1.2%)	4 (4.8%)	37 (44%)	42 (50%)
11.	I enjoy working on material questions when learning using the barcode scanner game media.	1 (1.2%)	5 (6%)	41 (48.8%)	37 (44%)
12.	After learning the barcode scanner game, I am interested in learning more about Japanese.	0 (0%)	8 (9.5%)	43 (51.2%)	33 (39.3%)

Based on the questionnaire response above, learning Japanese using barcode scanner media with a game-based learning method shows positive results. Of all the statement items on the aspect of the influence of learning media, more than 80% of respondents who are students answered on a scale of 3-4, which means they agree strongly.

In the eighth item, 90.5% of students agreed that students become more motivated when learning using barcode scanner media with a game-based learning method. In the ninth item, 97.6% of students agreed that learning using barcode scanner media with a game-based learning method makes students happy and entertained. Item ten, 94% of students agree that learning using barcode scanner media with a game-based learning method is very interesting and fun. Item eleven, 92.8% of students agree that learning using barcode scanner media with a game-based learning method makes students happy to do questions from learning materials. Item twelve, 90.5% of students agreed that learning using barcode scanner media with a game-based learning method makes students interested in learning Japanese.

3.2 Discussions

Based on the results of the student perception questionnaire on the aspect of learning media when learning Japanese using the barcode scanner, media makes students enthusiastic about learning. Learning media like this is following what students want, especially in this digital era where everyone cannot be separated from smartphones in their daily lives. Learning

media by utilizing technology also helps students and teachers make the subject matter more interesting so that it is not only material from books that bores students. Engaging media can help students better understand and remember the material provided. In addition, students become more excited and active in taking part in learning.

Then we moved on to the game-based learning aspect. When Japanese language learning is carried out with game-based learning methods, it can make students more motivated and interested in learning Japanese. The use of barcode scanner media with a game-based learning method succeeded in achieving the purpose of this study which is to create a fun learning atmosphere based on the perception questionnaire students already feel happy and entertained following Japanese language learning at that time.

4 Conclusions and Suggestions

4.1 Conclusions

Based on the discussion of the results above, it can be concluded that students are happy and entertained when learning Japanese using barcode scanner media with a game-based learning method. This follows the purpose of the research, which is to make learning fun so that students are interested and interested in learning Japanese. In addition, there are many other positive impacts based on student responses to the questionnaire, including:

1. Students become more enthusiastic about learning Japanese
2. Learning using technology-based media is what students want to learn.
3. Students' comprehension of Japanese improves
4. Students understand the material better
5. Material is easier to remember
6. Students become more motivated to learn Japanese
7. When learning, students are happy and entertained following the learning
8. Students become more excited and active in learning
9. Students become interested in learning more about Japanese.

4.2 Suggestions

Based on these conclusions, suggestions are made for teachers to use technology-based interactive learning media and methods more often in order to increase student interest and motivation. In this digital era, students prefer learning by utilizing technology so that students do not readily feel bored when participating in learning. When students feel happy and interested in learning, it will make it easier for teachers to create interactive learning.

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