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# Digital Media using Android Device for Japanese Grammar Learning

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### ABSTRACTS

This study aims to determine the application of digital media impact as a grammar learning media. The method used in this study is quantitative descriptive method, which is supported by questionnaire. This study's results were based on calculation of the survey results from Google Docs, which are distributed to 12 final-year students of the Japanese literature department, Universitas Komputer Indonesia. This study shows the Japanese grammar learning application and discusses its features. The conclusion obtained in this study is that the application is very useful and has complete features. This study's conclusion shows that 100% of respondents use digital learning applications as their learning media. They stated that the application is very useful, more practical, easier to carry, and easier to use, and very helpful in learning Japanese, even though several features need to be improved. The use of this application media can increase motivation and Japanese grammar skills. The development and improvement of the quality of application media to get better learning outcomes are needed.

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## I. INTRODUCTION

Many advanced technologies can transform previous learning into modern learning. Arts et. all stated that digital technology can change nature conservation in a more sophisticated and profound way (Arts et al., 2015). Many researchers have created various digital media technologies to help smooth the learning process for students and university students. Digital media technology that can help the learning process is an electronic dictionary. An electronic dictionary is a digital reference book that contains words and their meanings, spelling, and etymology (El-Sawy et al., 2019). Besides, according to Hamalik, the use of learning media in the teaching and learning process can generate new desires and interests, generate motivation and stimulation of learning activities, and positively influence students. Therefore, interesting media can determine the effect and can also help students improve vocabulary mastery (Moroz, 2013). Tarigan conveyed the same thing as when a student learns a foreign language, knowledge of vocabulary, pronunciation, grammar, usage functions and even the culture of the language being studied should be mastered and known by that person (Moroz, 2013). Rusman also stated that in principle, one of the objectives of using interactive learning media in learning is to replace and or complement and support the elements, objectives, materials, methods and tools of assessment of the learning process. The application of the principles of learning design in the form of a model will guide us when designing the learning that will be used (Octeau et al., 2013).

This research shows that the average way of learning using a manual

dictionary has more effect on learning outcomes than a digital dictionary. There is a similar study from Barham et al. who also explained that the use of a mobile dictionary is very helpful and has great benefits for learning and education [5]. The effectiveness of the learning process is strongly influenced by the method and learning media factors used. Both are related to each other, where the choice of teaching method will affect the type of media to be used. Conformity includes realizing the achievement of learning objectives. Therefore, in selecting media, things that need to be considered are the context of learning, learner characteristics, and the task or response expected from the learner (Herniwati et al., 2019). To overcome possible obstacles that occur during the interpretation process and so that learning can take place effectively, wherever possible the delivery of messages is assisted by using learning media. It is hoped that by using learning resources in the form of learning media, the communication process in teaching and learning activities will take place (Herniwati et al., 2019). Learning Japanese, in principle, is the same as learning other languages. Asano stated that the ultimate goal of learning Japanese is to be able to communicate all ideas and ideas using Japanese both orally and in writing (Philiyanti et al., 2019). Surawiredja, Arianingsih, and Setiana stated that the use of multimedia for learning Japanese is very helpful for learners to improve their Japanese language skills (Surawiredja et al., 2018). Therefore, it can be claimed that students rely heavily on electronic dictionaries as excellent learning tools. Not only that, but electronic dictionaries can also improve vocabulary knowledge for students (Murnani et al., 2015).

This study aims to see the effectiveness of using Japanese learning media applications, especially the JLPT N3-N4 Grammar for Android Device application. This research also discusses the features that need to be improved in the application. The method used in this research is a quantitative descriptive method supported by surveying to describe or analyze a research result.

## 2. METHODOLOGY

This study was conducted to determine the effect of using Japanese grammar applications on Japanese language learning. This study uses a qualitative descriptive method because it includes data collection, data analysis, and conclusions on the data analysis. The qualitative descriptive research method is a type of research with the process of obtaining data. This study surveyed with the following conditions: 1) Obtaining data in the form of numbers with qualitative descriptive about the part of the subject to be studied; and 2) The data collection used a questionnaire to ask statements to the target data study (Apuke, 2017; Haristiani *et al.*, 2020). This study used the JLPT N3-N4 application to help students more easily understand Japanese grammar material using a method by the student's ability to capture the material provided. Target participants in filling out the questionnaire for this study are 12 final-year students of Japanese Literature student, Faculty of Literature, Universitas Komputer Indonesia.

The research instrument used was a questionnaire. In this study, the authors conducted a questionnaire from Google Docs to 12 Japanese Literature students to determine the impact of using this electronic dictionary as a research

objective. This questionnaire consists of 12 questions. 4 questions in the form of multiple-choice, eight other questions in the form of essays that focus on each participant's opinions about using electronic learning applications. The data analysis technique used is to use quantitative descriptive data analysis techniques. This technique is used to obtain data and analyze it through a questionnaire in a descriptive percentage.

## 3. RESULTS AND DISCUSSION

This study aims to determine several factors regarding the use of digital learning applications. Among them are to find out the role of digital learning applications as Japanese grammar learning media, to know the positive impacts and negative impacts of using digital learning applications as a media of Japanese grammar learning, the features of digital learning applications.

### 3.1. *Digital Learning Application as a Medium of Japanese Grammar Learning*

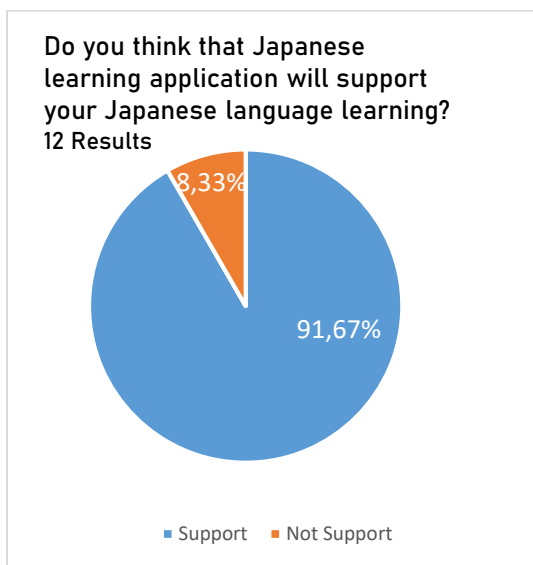
This study shows that 100% of respondents use digital learning applications as their learning media. Respondents have used digital learning applications for more than two years. Table 1 shows that Japanese learners use digital learning applications because they are considered more practical, easier to carry everywhere, and easier to use and very helpful in learning Japanese.

**Table 1. The reason for using Japanese Grammar Application**

Data	Reason
Respondent 1	To make it easier to find Japanese language material
Respondent 2	Practical and portable
Respondent 3	Practical and easy to use
Respondent 4	Easy to use

Respondent 5	Practical and can be accessed anywhere and anytime
Respondent 6	Comfortable to use and portable
Respondent 7	Helpful and more efficient
Respondent 8	To make it easier to learn the Japanese language
Respondent 9	Needs
Respondent 10	Easy to use
Respondent 11	Easy to use
Respondent 12	More practical

Figure 1 shows the effectiveness of using an electronic dictionary application. Figure 1 shows that 91.67% of students stated that the use of learning media applications greatly supports their learning process. The reason is they feel the learning application is more practical and effective than manual books.



**Fig. 1. The effectiveness of a Japanese Learning Application**

Table 2 shows the reasons respondents think that learning media applications are very effective in learning Japanese. Japanese learners need digital learning applications that are easy to carry everywhere and do not take up a lot of space. The application tends to be more attractive because they have calm colours

and more complete than books. One application can include many features, while books have different contents depending on needs. Also, people don't need to spend a lot of money to seek knowledge by using online learning applications.

Table 3 shows that the reason is the appearance of the media can affect the focus of learning. Apart from being used for learning, this application can also be used as a game, for example, a game to guess the words of hiragana and kanji so that we do not feel bored and are quick to memorize. However, if used for too long, digital learning applications can cause eye fatigue.

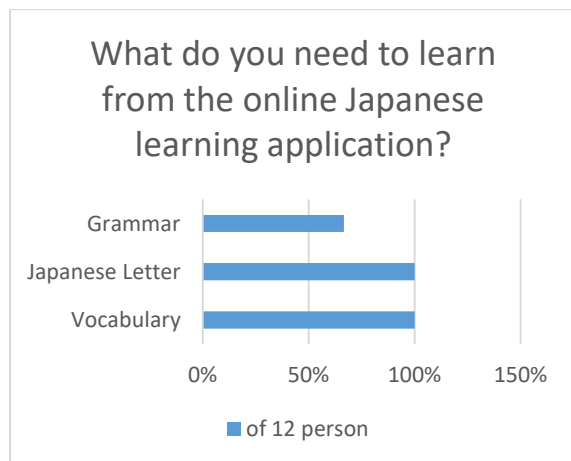
**Table 2. The reasons for supports Japanese language learning process**

Data	Reason
Respondent 1	Japanese learners need it
Respondent 2	The application is very useful
Respondent 3	Easy to carry and use
Respondent 4	Easy to use
Respondent 5	Very helpful in the learning process
Respondent 6	Depends on the content of the application whether it can be used as a supporting medium in helping the learning process or not
Respondent 7	Helpful and more efficient
Respondent 8	Sometimes the lessons contained in books are not too detailed, therefore an online Japanese learning application is needed
Respondent 9	Besides being easier to use, the online Japanese application is more interesting
Respondent 10	Because we need learning media assistance
Respondent 11	Easy to use
Respondent 12	Online Japanese learning applications are easier because we don't have to bother buying books on Gramedia and also become more economical

**Table 3. The reason for learning application media is more interesting than books**

Data	Reason
Respondent 1	The appearance of the media can affect the focus of learning
Respondent 2	Online delivery can be more developed than books
Respondent 3	Tiring eyes
Respondent 4	We carry gadget every day
Respondent 5	Learners prefer to use smartphones for learning than textbooks
Respondent 6	This application can also be used as a game, for example guessing the word hiragana and kanji letters so that we do not feel bored and quickly memorize
Respondent 7	Applications are more flexible to use compared to books
Respondent 8	Free and can be used anywhere
Respondent 9	Not interesting
Respondent 10	Accessible
Respondent 11	Accessible
Respondent 12	No need to write

Figure 2 shows that the application of learning media is needed in learning Japanese, be it vocabulary, grammar, or kanji. From the questionnaire results, respondents confirmed that they were using the same Japanese language learning application, namely JLPT N3-N4 Grammar for Android Device. Therefore, in the next section, we will discuss these applications.



**Fig. 2. Things needed from the Japanese language learning application**

3.1. Features of JLPT N3-N4 Grammar for Android Device

3.2.

JLPT N3-N4 Grammar for Android Device is a Japanese language learning application that contains N4 and N3 material. The contents cover grammar according to the learning level and example sentences. JLPT means Japanese Language Proficiency Test. JLPT is a form of test to measure a person's Japanese language skills. The lowest level of Japanese language proficiency is level N5, and the highest level is level N1. Figure 3 to figure 5 shows the application display of JLPT N3-N4 Grammar for Android Device.



**Fig. 3. Menu display of JLPT N3-N4 Grammar for Android Device Application**

Figure 3 shows the menu section of JLPT N3-N4 Grammar for Android Device, the user can decide whether to open grammar level N3 or level N4. Once the level is selected, users can choose the vocabulary they want to learn (displayed in Figure 4). Users can also easily use the "search" icon to search more quickly. This



application focuses on grammar. This application also shows examples of using the sentences. Not only one sentence, but there are also many examples. This learning application tends to be more complete and more practical than other learning applications (displayed in Fig. 5).



Fig. 4. Sub-menu Display of JLPT N3-N4 Grammar for Android Device



Fig. 5. Content Display of JLPT N3-N4 Grammar for Android Device

The previous section mentioned that interest in using applications is also affected by the application display. We have researched the appearance of the application. There are various kinds of opinions that developers can use to improve the performance of learning applications.

The results of this study stated that JLPT N3-N4 Grammar for Android Device

application was quite complete, but it would be better if there were a listening feature so that users could understand pronunciation correctly. This application is available in Bahasa Indonesia so that people who are not fluent in English will have difficulty understanding its contents. For colour display, it is better to use green because it makes the eyes more comfortable when looking at it.

#### 4. CONCLUSION

This study's conclusion shows that 100% of respondents use digital learning applications as their learning media. The reason is that learning applications are considered more practical, easier to carry, and easier to use and very helpful in learning Japanese. The application is easy to carry and does not take up a lot of space. Apps tend to be more attractive if they have colours that comfortable in the eye, and tend to be more complete than books.

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The most widely used application is the JLPT N3-N4 Grammar for Android Device application because it is considered quite complete. However, this application also needs to improve its features and add a listening feature so that users can understand pronunciation correctly. This application also needs to add Indonesian language features to make it easier for users who don't understand English. The colour of the application will also be better if it uses a colour that is not flashy.

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