Research article

User Perception of the Ease and Suitability of Damarjati Application

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Abstract.
Damarjati is a Java-language web application developed for the growth of local content learning based on Higher-Order Thinking Skills. This study analyzes the user's perception of the ease of operating this application. The respondents of this study were high school students in Central Java Province. The Borg and Gall development model was used in this research. The research data were the perceptions of high school students in Central Java Province, collected using a questionnaire via a google form. Classification of data and numerical analysis were done using the percentage technique. The results showed that 406 (90%) students found the application very easy to use, 412 (91%) found it easy to learn the materials, 434 (96%) stated that it contains appropriate material, 419 (93%) found it suitable for measuring competence, and 397 (88%) found that the application usage guide was clear. Based on the results, it was concluded that the percentage of user perceptions of the ease of Damarjati application as well as the suitability of the material was very high (89.7% and 94.5%, respectively).

Keywords: user perception, convenience, suitability, Damarjati applicationIntroduction

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1. Introduction

The conclusion of research conducted by The Pew Internet & American Life Project stated that more than half of teenagers who use the internet have various content that they produce [1]. This indicates that in relation to the internet, at the age of teenagers, a participatory culture generally develops. Jenkin further suggests that forms of participatory culture include affiliation, expression, collaboration, problem solving, and circulation. Affiliation involves formal or informal membership in a media network community, such as Friendster, Facebook, MySpace, message boards, metagaming, or game clans. Expressions generate something new like fan videos, fan fiction, zines, or mash-ups. Problem solving collaboration is cooperation in groups both formally and informally to complete tasks and develop new knowledge through Wikipedia, alternative reality games, or spoiling. While circulation is shown through the formation of trends in the media used such as podcasting or blogging.

The results of the study above illustrate that high school students in Central Java are in the phase of having a participatory culture. In this regard, within the framework of presenting Javanese language learning to suit the culture of high school students, it is necessary to develop media that attracts attention. (HOTS)". This research has succeeded in developing a learning web called Damarjati Application "Dadya Marga Jawa Rinukti". In connection with this success, this study will seek answers to questions about how users respond and how useful the Damarjati application is for high school Javanese language learning in Central Java Province.

The expected contribution to science from this research is the production of a Java language web development model to be used as a medium in developing local content learning at the high school level in Central Java Province. In order to determine the usefulness of the Damarjati Application media, media product testing was carried out. Through product testing, it is hoped that concrete data will be obtained to continue the process of analyzing and inferring as well as preparing recommendations addressed to related parties. These recommendations are used to plan the necessary follow-up.

The formulation of the problem in this study are: 1) What is the user's perception of the ease of operation of the Damarjati Application?; 2) How is the suitability of Damarjati's application on the material in the curriculum?; and 3) What is the suitability of the Damarjati application as a vehicle for measuring the Javanese language competence of high school students?

2. Theoritical Review

2.1. The Existence of Electronic Applications in Learning

Electronic applications are needed in the learning system of the 4.0 industrial era and the 5.0 social era. Information technology is developing very rapidly and has penetrated into various fields of life, including the world of learning. The learning system that uses the application is a form of e-learning. Such a learning system is required to implement an open system. Isroqmi [2] suggests that the characteristics of learning with an open system include: easy access, heterogeneous, multi-disciplinary, and a high level of productivity.

In this regard, high school Javanese language learning must be adapted to transform both the content and the learning system. This is necessary so that students can be interested and can easily understand the content of learning[2]. The benefits obtained by using electronic applications include: 1) simplifying and increasing the interaction

time of students with materials and teachers; 2) increase flexibility with regard to time; 3) optimize face-to-face time; 4) improve the quality of teachers in the development of learning models; 5) reducing the digital divide between students and teachers; and 6 facilitate the refinement and storage of teaching materials [3]. In connection with these benefits, it is certain that there are advantages and disadvantages in the use of electronic applications that are not discussed in this study.

The Damarjati application begins with the appearance of a video related to the material. This refers to the opinion of Woolfitt [4] which states that the advantages of using video in learning include: 1) access to video content is very open; 2) cheaper and more efficient in terms of cost, manpower, and time; and 3) can be accessed at any time. Meanwhile, according to Brown [5], the benefits of using video in learning include: 1) easy acceptance by students; 2) can provide a stimulus in learning activities; 3) contain more information; 4) engage users; 5) integrate the outside world into the classroom; 6) more flexible; 7) easy to understand; and 8 provide new experiences to students.

2.2. Perception of User Ease of Application

A measure that indicates a user feels confident that an information system can be easily understood and used can be referred to as perceived ease of use [6]. He further stated that the factors that influence the perception of convenience include: the technology factor itself, the user's reputation factor for the technology, and the reliability factor of the mechanism supporting the use of technology. The same thing was stated by Anshar [7] who quoted the opinion of Tsui Wa (2002) and Titis (2008), which is a perception where someone will think that it is easy to use an information technology to support their activities.

Indicators of perceived ease are easy to learn to operate, easy to do whatever you want, clear and understandable interaction, flexible interaction, and easy to skill [6]. The variable of user perception of the ease of application can be seen by the decision to use the application in question [8].

2.3. Perception of App User Suitability

Perception of suitability is intended whether the Damarjadi application provides benefits in the learning process. Furthermore, that which is intended to be useful in the learning process means to contain basic competencies that should be taught to students and as a measuring tool to determine the achievement of these competencies.

Referring to Sun and Zhang (2006), Ginting [9] suggests that the perception of benefits includes aspects of benefits, aspects of increasing productivity, aspects of encouraging effectiveness, and improving performance. Meanwhile, according to Davis [6] perceived usefulness is the degree to which users believe that the application of an application will improve performance. This can be measured in terms of usability and effectiveness. Usability concerns work that is easy, useful, can increase productivity. While effectiveness includes enhancing effectiveness and can develop job performance.

Perception of suitability is also interpreted as the usefulness of the application in the implementation of an activity. Adopting the opinion of Davis [6] in terms of its usefulness, the use of the application can be seen in the achievement of indicators which include: 1) improving performance; 2) increase productivity; 3) increase effectiveness; and 4) useful in learning activities.

3. Methods

The respondents of this study were high school students in Central Java Province. The development research model which refers to the Borg and Gall development model is the model used in this research. The research data is the perception of high school students in Central Java Province. Data collection techniques using a questionnaire instrument through google form. The data were classified and analyzed numerically with the percentage technique.

4. Result and Discussion

4.1. Result

The results of the study can be seen in the following table and figure.

Based on the tables and graphs above, it can be seen that the user perception of the Damarjati application states that it is very easy and easy to use 406 (90%), states that it makes it easy to learn the material 412 (91%), states that it contains appropriate material 434 (96%), states that it is suitable for measuring competence 419 (93%), and stating the clarity of application usage guidelines 397 (88%).

TABLE 1: Ease, Suitability of Materials, and Suitability of Competency Measurement.

No	Easy, material suitability, and suitability as a measure of competence	SA	A	U	D	SD
1	easy to use	182	224	43	1	0
2	make it easier to learn the material	165	247	37	1	0
3	Loading material in accordance with the curriculum	177	257	15	0	1
4	The questions are suitable for measu-ring Java-nese langu-age compete-ce	148	271	30	0	1
5	The application usage guide is very clear	159	238	50	3	0

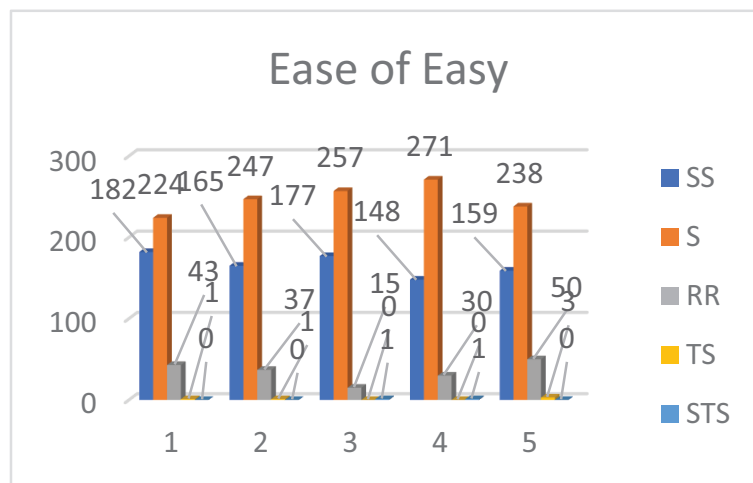Note: SA= strongly agree, A= agree, U= undecided, D= disagree, SD= strongly disagree

Figure 1: Graph of Ease, Suitability of Materials, and Suitability of Competency Measurement.

4.2. Discussion

Based on the results of data analysis, it was concluded that the percentage of user perceptions of the ease of the Damarjati application was very high (89.7%) as well as the percentage of user perceptions of the suitability of the material was also very high (94.5%, and stated that it was suitable for measuring competence was also very high (93). %), as shown in the following figure.

Figure 2: Graph of User Perception of the Damarjati Application.

5. Conclution

Referring to the research problem formulation, it can be concluded that: 1) User perception of the ease of operation of the Damarjati Application is very high (89.7%); 2) The user's perception of the suitability of the material is very high (94.5%; and 3) the user's perception of the suitability as a competency measurement tool is also very high (93%). Thus, the Damarjati application can be developed for use in the HOTs-based Javanese language learning process in high school.

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