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DEVELOPMENT OF JAVANESE SCRIPT APPLICATION TO INCREASE LEARNING MOTIVATION OF ELEMENTARY SCHOOL STUDENTS

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**ABSTRAK** 

Penelitian yang bertujuan untuk meningkatkan motivasi belajar siswa sekolah dasar ini dilaksanakan di Sekolah Dasar Negeri Loireng. Metode *Research and Development* (R&D) digunakan untuk mengembangkan aplikasi aksara Jawa ini.. Subjek pada penelitian ini yaitu siswa kelas 5 (lima) yang ada di SDN Loireng. Hasil dari motivasi sebelum dan sesudah menggunakan aplikasi aksara Jawa sebesar 65% dan 98%, disimpulkan bahwa angket motivasi belajar mendapatkan hasil 46% siswa dalam kategori sedang. Dalam pengujian normalitas di dapatkan hasil nilai signifikansi Asymp.Sig.(2-tailed) sebesar 0.000 < 0.05 maka data berdistribusi tidak normal. Dalam uji *Wilcoxon Signed Rank Test* diketahui Asymp.Sig.(2-tailed) bernilai 0.000 karena nilai 0.000 < 0.05. Sehingga dapat disimpulkan bahwa terdapat pengaruh terhadap peningkatan motivasi belajar siswa kelas 5 (lima) Sekolah Dasar Negeri Loireng.

Kata Kunci : pengembangan, aksara Jawa, motivasi belajar

**ABSTRACT** 

This research, which aims to increase the learning motivation of elementary school students, was conducted at Loireng State Elementary School. Research and Development (R&D) method were used to develop this Javanese script application. The subjects in this study were grade 5 (five) students at SDN Loireng. The results of motivation before and after using the Javanese script application amounted to 65% and 98%, it was concluded that the learning motivation questionnaire obtained the results of 46% of students in the moderate category. In normality testing, the results of the Asymp.Sig. (2-tailed) significance value of 0.000 < 0.05, so the data is not normally distributed. In the Wilcoxon Signed Rank Test test, it is known that Asymp.Sig. (2-tailed) is 0.000 because the value of 0.000 < 0.05. So it can be concluded that there is an influence on increasing the learning motivation of grade 5 (five) students of Loireng State Elementary School.

**Keywords: development, Javanese script, learning motivation** 

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#### INTRODUCTION

The development of information technology in terms of data storage and transmission is getting cheaper and better in quality, both in the field of institutions and the government have also made various efforts to take advantage of the development of information technology, even in the field of education in Indonesia it is time for us to use this information technology (Imania & Bariah, 2019). Education can be realized with efforts that are able to synergize educational components optimally so that the interaction process between students and learning resources can run according to the arrangement of learning (Cahyadi, 2019). According to Mustofa (2017) education is said to be of quality if it can produce graduates who are able to face the challenges of life they face. According to Samani (2012) quality education can be realized through quality learning.

Javanese script is one of the heritage of the ancestors of the Indonesian people, where not all nations in the world, especially in Asia, have their own letters. Javanese script is one of Indonesia's most valuable cultural heritages. The form of script and the art of making it into a legacy that should always be maintained and preserved. Javanese script is a real historical evidence of the ancient times before the formation of the Indonesian nation. The preservation of Javanese script has been carried out by the government, one of which is by including it in the education curriculum. So that the Indonesian people will not lose the art and culture of our previous ancestors (Pribadi, 2018).

Motivation is a personal and internal feeling. Feelings arise from needs and wants where these are infinite. The fulfillment of some needs gives rise to other needs therefore motivation is a continuous process. Motivation is a general term that expresses an individual's positive attitude in certain aspects of their environment. Motivation has an energizing and directing function. Other terms to indicate certain aspects or conditions of motivation are needs, desires or interests (Sandika, 2021).

Therefore, to find out how students become motivated in following Javanese script learning, the development of Javanese script application development to increase motivation for elementary school students. The development of this application design uses the Research and Development (R&D) method as a research method so that it is expected to provide new innovations in efforts to increase student interest and understanding as well as in the display of User Interface (UI) and User Experience (UX) more attractive and modern so that it can motivate students of Loireng State Elementary School to learn Javanese characters.

### **METHODS**

The research method uses a development method or commonly referred to as Research and Development (R&D). This R&D method is one of the research models used to produce certain products from a problem and test the effectiveness of these products. Research and development is longitudinal (Apriansyah, 2020). Student motivation during learning is measured using a learning motivation questionnaire. This questionnaire was given before being given the Javanese script application to see students' initial motivation. Then given again after being given the Javanese script application to see motivation after application. In giving scores using a guttman scale with the following details:

Table 1. Guttman Scale

No.	Answers	Score
1.	Yes	1
2.	No	0

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## **RESULTS AND DISCUSSION**

The results of learning motivation before being given the Javanese script application and after being given the Javanese script application can be seen in the table below:

Table 2. Motivation Score Results

Student	Motivation Score	<b>Motivation Score</b>
Respondents	Before	After
R1	6	10
R2	6	10
R3	7	9
R4	6	10
R5	7	10
R6	5	10
R7	8	10
R8	7	10
R9	6	9
R10	8	10
R11	5	10
R12	4	9
R13	6	10
R14	7	9
R15	5	10
R16	6	10
R17	8	10
R18	7	10
R19	8	10
R20	8	10
R21	6	10
R22	7	10
R23	6	10
R24	5	10
R25	9	10
R26	7	10
Presentase	65%	98%

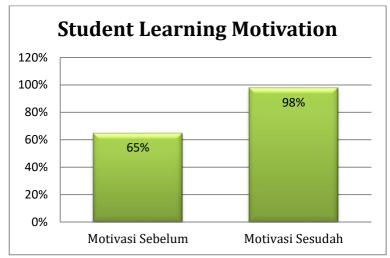


Figure 1: Differences in Student Motivation Before and After

During the learning process, the results of student learning motivation before applying the Javanese script application were 65% with sufficient criteria and the results of learning motivation after applying the Javanese script application were 98% with very good criteria. So student learning motivation has increased. The following percentage of learning motivation is grouped by category:

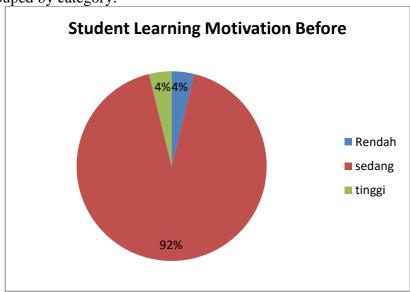


Figure 2. Student Learning Motivation Before



Figure 2. Student Learning Motivation Before After

Based on the picture of motivation before applying the Javanese script application from 26 respondents there were 4% students in the low category, 92% students in the medium category and 4% students in the high category. While learning motivation after the application of Javanese characters from 26 respondents there were 0% students in the low category, 15% students in the medium category and 85% students in the high category. In this percentage, the motivation of grade 5 (five) students of SDN Loireng is included in the moderate category with a percentage of 46% from before and after applying the Javanese script application, so it can be concluded that the learning process using the Javanese script application can increase the learning motivation of elementary school students.

## Wilcoxon Signed Rank Test

The Wilcoxon Signed Rank Test is a nonparametric test that can be used to measure the difference between two groups of paired data on an ordinal or interval scale but the data is not normally distributed (Windi et al., 2022). To test whether the data is normally or abnormally distributed, use the Kolmogorov smirnov normality test. the normality test itself is part of the classic assumption test which aims to determine whether the residual value is normally distributed or not. A good regression model is to have a normally distributed residual value (Prastyo et al., 2020). The basis for making the Kolmogorov smirnov normality test decision if the significance value is > 0.05, the residual value is normally distributed and if the significance value is < 0.05, the residual value is not normally distributed.

It is known that the significance value of Asymp.Sig. (2-tailed) is 0.000 < 0.05, so according to the basis for decision making in the Kolmogorov-Smirnov normality test above, it can be concluded that the data is not normally distributed. Thus, it can be determined that the appropriate hypothesis test is the Wilcoxon Signed Rank Test. The basis for making the Wilcoxon Signed Rank Test decision if the Asymp.Sig. (2-tailed) value < 0.05 then  $H_a$  is accepted and  $H_0$  is rejected and if the Asymp.Sig. (2-tailed) value > 0.05 then  $H_a$  is rejected and  $H_0$  is accepted.

Table 3. Test Statistics

Test Statistics <sup>a</sup>	
	Motivasi Sesudah -
	Motivasi Sebelum

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Z	-4.488 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000

Based on the SPSS output of Test Statistics above, it is known that Asymp.Sig. (2-tailed) is 0.000, because the value of 0.000 < 0.05, it can be concluded that  $H_a$  is accepted and  $H_0$  is rejected. This means that there is a difference between student learning motivation before and after, so it can be concluded that there is an effect of using the Javanese script application for grade 5 (five) students of Loireng State Elementary School.

### **CLOSING**

The Javanese script application is stated to be able to increase the learning motivation of SDN Loireng students because in its measurement using a learning motivation questionnaire, the results obtained before and after using the Javanese script application are 65% and 98%, it is concluded that the learning motivation questionnaire results in 46% of students in the moderate category. In the test also uses the Wilcoxon Signed Rank Test but before using the test the normality test is carried out, when the normality test is obtained the results of the Asymp.Sig. (2-tailed) significance value of 0.000 < 0.05, the data is not normally distributed. Thus it can be determined that the appropriate hypothesis test is used, namely the Wilcoxon Signed Rank Test. In the Wilcoxon Signed Rank Test, it is known that Asymp.Sig. (2-tailed) is 0.000 because the value of 0.000 < 0.05, it can be concluded that  $H_a$  is accepted and  $H_0$  is rejected. This means that there is a difference between student learning motivation before and after. So it can be concluded that there is an influence on increasing the learning motivation of grade 5 (five) students of Loireng State Elementary School.

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