The Effect of the Wordwall Educational Game on Madurese Language Learning Outcomes of Fifth Grade Students at UPTD SDN Tanjung Jati 2

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Abstract

This study was motivated by the low learning outcomes of students in the Madurese language, particularly in mastering vocabulary and understanding narrative texts. The purpose of this study was to determine the effect of the Wordwall educational game on the Madurese learning outcomes of fifth-grade students at UPTD SDN Tanjung Jati 2. This study applied a quantitative approach with a one-group pretest-posttest design. The research subjects consisted of 18 fifth-grade students. Data were collected through tests (pretest and posttest) and observation sheets of learning implementation. The hypothesis was tested using the Wilcoxon Signed Rank Test, which obtained a significance value of 0.001 < 0.05, indicating that the alternative hypothesis was accepted. The results showed that the use of Wordwall had a significant effect on students' Madurese learning outcomes. The media proved to be effective in improving learning outcomes as well as creating a more interactive, enjoyable, and engaging classroom atmosphere.

Keywords : Madurese language, Learning outcomes, Wordwall

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1. Introduction

The Merdeka Curriculum is a new curriculum implemented in Indonesia to address challenges in education in the current era of globalization (Andrea et al., 2024). In the Merdeka Curriculum, elective subjects such as English and local content, including regional languages, play a strategic role. Local content or regional language learning in the Merdeka Curriculum is designed to strengthen regional identity through language, literature, and culture, as well as to shape the character of Pancasila and a cultured society. One important local content is the Madurese language. Madurese is a regional language used by people of Madurese ethnicity as a means of daily communication. According to Saraswati (2008), Madurese is a language from the Austronesian language family spoken by approximately 5% of Indonesia's total population. In addition to serving as a means of daily communication, Madurese also plays a role in preserving local culture that has been passed down from generation to generation (Rapanna, 2016). As a cultural heritage, the Madurese language needs to be preserved and introduced early on to the younger generation. It is very important to pay attention to the implementation of the curriculum for learning the Madurese language.

However, the implementation of Madurese language learning often faces various obstacles. Based on interviews and observations in class V of UPTD SDN Tanjung Jati 2, problems were found in the form of students' lack of understanding of Madurese vocabulary and difficulty in understanding the content of Madurese narrative texts. The data show that students' Madurese language learning outcomes remain low, with an average score of 54.24 below the minimum passing grade of 62. This problem may be attributed to the diverse cultural and linguistic backgrounds of the fifth-grade students. Based on data on fifth-grade students, 27.8% of students are from Madura, while 66.7% are from Java, and 5.5% are from outside Java. These regional differences also influence the students' daily communication habits. As a result, students who are not native speakers tend to be passive and lack confidence in learning Madurese,

while native speakers appear to be more active in asking questions and discussing the meaning of words and text content.

To overcome these challenges and improve the quality of learning, one relevant innovation is game-based learning using the Wordwall application. This application is a learning medium using an online platform designed in the form of educational games to engage students in various activities, including answering quizzes, discussing, and participating in surveys (Purnamasari et al., 2022). The Wordwall educational game helps students engage in various activities and makes learning more enjoyable, thereby increasing their interest in learning.

Various studies show that this media is able to support students in improving their understanding of the material and learning outcomes, especially in the field of language. Farida et al. (2023) in their study showed that the application of Wordwall was able to improve learning outcomes gradually through two cycles of classroom action. In their research, Usman et al. (2024) found that the application of Wordwall educational media in Indonesian language learning had a significant impact on student learning outcomes. Furthermore, research conducted by Fauzan et al. (2025) showed that the use of Wordwall educational games influenced student learning outcomes in Indonesian language subjects, especially in narrative text material. Research by Sari & Putri (2022) showed an increase in reading comprehension of narrative texts among fifth-grade students at SDN Kepanjen 1 Jombang, from an average of 61 in the pre-cycle to 86 in cycle II after the implementation of Wordwall media. Based on this background, this study aims to determine the effect of the Wordwall educational game on the learning outcomes of Madurese language for fifth-grade students at UPTD SDN Tanjung Jati 2.

2. Method

This study used a quantitative approach with a pre-experimental research type and a One Group Pretest-Posttest Design. This design was used to measure the effect of treatment on the same group before and after treatment (Sugiyono,

2022). The research subjects were 18 fifth-grade students at UPTD SDN Tanjung Jati 2. Data were collected through learning outcome tests and learning implementation observation sheets. Learning outcome tests were used to measure students' ability to understand Madurese language material, both before and after using Wordwall media, while observations were used to assess student activity and engagement during the learning process. Instrument validation was conducted by media experts, learning experts, and test instrument experts. Research instruments Data were analyzed using the Wilcoxon Signed Rank Test with the help of the SPSS program to determine whether there was a significant effect on learning outcomes.

3. Result and Discussion

The research conducted by the researcher was quantitative research with a Pre-Experimental Design type using a One-Group Pretest-Posttest Design. This study aimed to determine the Madurese language learning outcomes of fifth-grade students at UPTD SDN Tanjung Jati 2 through the application of the Wordwall educational game.

The results of the study indicate that the use of the Wordwall educational game has a significant effect on the Madurese language learning outcomes of fifth-grade students at UPTD SDN Tanjun Jati 2. The description of the students' pretest and posttest results is presented in the following table:

Table 1. Pre-test and Post-test Results

No.	Student Name	Pre-test Results	Posttest Results
1.	AF	20	50
2.	AT	20	20
3.	AS	30	30
4.	BNP	20	60
5.	ENNR	50	60
6.	HAJ	20	70
7.	HD	10	40
8.	MYAP	10	40
9.	NYM	50	90
10.	NA	20	30
11.	NI	40	40

12.	ONA	20	60
13.	SBAW	20	60
14.	SAA	10	50
15.	VSHP	30	30
16.	YMZ	40	50
17.	ENAS	30	60
18.	MNRA	30	30
Average result		**27.2**	**49.4**
Average increase		**22. 2**	

Based on the pretest and posttest results, there was an average increase in learning outcomes from 27.2 to 49.4. This shows that learning Madurese using the Wordwall educational game can help improve student learning outcomes, especially in the material on determining the main idea of a narrative text (Pokeddhâ Ghâncaran Narasi) and the values contained in a narrative text (Pessen Bâburugân Becce' è dâlem carèta).

A prerequisite or normality test was used to determine whether the pretest and posttest data to be analyzed had a normal or abnormal distribution. The normality test was conducted using the Shapiro Wilk method with the help of SPSS. The Shapiro Wilk test guideline states that data is considered normal if the significance value is greater than 0.05, while if it is less than 0.05, the data is not normally distributed. Based on the results of data analysis using SPSS, the normality test data for grade V is as follows:

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.244	18	.006	.891	18	.040
Posttest	.142	18	.200*	.941	18	.299

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Figure 1. Results of normality testing using the Shapiro Wilk method

Based on the normality test results, it can be concluded that the pretest data is not normally distributed, while the posttest data is normally distributed. Thus, the normality test is said to be not normally distributed, so the hypothesis test is performed using the Wilcoxon Signed Rank Test non-parametric test.

The results of the hypothesis test are used to determine whether there is a significant effect between the independent and dependent variables. In the hypothesis test using the Wilcoxon Signed Rank Test non-parametric test, the basis for decision making is that Ha is accepted if the significance value is less than 0.05 and rejected if it is greater than 0.05.

Test Statistics[a]

	Posttest - Pretest
Z	-3.213[b]
Asymp. Sig. (2-tailed)	.001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Figure 2. Results of hypothesis testing using the Wilcoxon Signed Rank Test method

Based on the results of the hypothesis test using the Wilcoxon Signed Rank Test non-parametric test, the significance value was 0.001 < 0.05, so Ha was accepted. Thus, it can be concluded that the use of Wordwall educational games has an effect on the Madurese language learning outcomes of fifth-grade students at UPTD SDN Tanjung Jati 2.

The improvement in learning outcomes is also supported by the results of learning implementation observations. Learning implementation observations were conducted twice, covering the learning steps according to the teaching module, aspects of teacher activities, and student participation.

Table 2. Results of Learning Implementation Observation Calculations

Meeting	Percentage	Criteria
1.	100%	Very Good
2.	100%	Very Good
Average	**100%**	**Very Good**

The results of Table 2, observations of the implementation of learning, show that all components of learning were carried out very well with a percentage of 100% in both meetings. The teacher (researcher) was able to carry out activities according to the stages in the teaching module, starting from the introduction, core activities, to the conclusion. All students appeared active,

enthusiastic, and showed high enthusiasm in participating in the Wordwall educational game.

In the implementation of Madurese language learning using the Wordwall educational game, students showed high enthusiasm, especially when the Gameshow Quiz began. The activity was carried out in groups, creating a competitive and collaborative atmosphere among the students. They seemed eager to answer questions, discuss with each other, and work together to get the highest points. This condition shows that Wordwall not only improves cognitive learning outcomes but also strengthens students' motivation to learn.

This finding is in line with the results of research by Dotutinggi et al. (2023), which states that educational games as a learning medium greatly influence students' motivation and interest in learning, so that the learning process is not monotonous and boring. Kusnadi et al. (2024) also stated that after using the Wordwall learning medium, students' learning motivation increased, such as curiosity, self-development, and active participation, to the extent that students were encouraged and very enthusiastic when using the Wordwall medium.

The results of this study are relevant to previous studies. Fauzan et al. (2025) stated that the use of Wordwall educational games had an effect on student learning outcomes in Indonesian language, especially in narrative text material. Usman et al. (2024) proved that the results obtained from their research showed that there was a difference in student learning outcomes before and after the implementation of learning using Wordwall media. In addition, Sari & Putri (2022) argued that the use of Wordwall learning media is effective in improving reading comprehension skills in narrative texts. Farida et al. (2023) added that the use of Wordwall games improves student learning outcomes and has a positive impact on learning interest and motivation.

The results of this study also reinforce the constructivist theory perspective of Piaget and Vygotsky that knowledge is formed through a process of construction by the students themselves and through interaction with their

groupmates in the zone of proximal development. This is in line with the opinions of Nurhayati et al. (2024) and Suryana et al. (2022), who explain that according to constructivism theory, students' knowledge is actively constructed by the students themselves. Through Wordwall, students play an active role in discovering the meaning of Madurese words, connecting new concepts with previous experiences, and discussing with peers.

Thus, the results of this study indicate that the Wordwall educational game can be a solution to improve students' learning outcomes in Madurese, especially in the subject matter of narrative text main ideas (Pokeddhâ Ghâncaran Narasi) and the values contained in narrative texts (Pessen Bâburugân Becce’ è dâlem carèta). This medium provides practical benefits for teachers in implementing differentiated learning in the era of the Merdeka Curriculum and serves as an alternative technology-based learning method that can preserve regional cultural identity through an enjoyable approach.

4. Conclusion

Based on the research conducted in class V of UPTD SDN Tanjung Jati 2, it can be concluded that the Wordwall educational game has an effect on the learning outcomes of Madurese language. This can be seen from the difference in pretest and posttest scores. The average pretest score indicates that the initial ability is still low. Meanwhile, after learning using the Wordwall educational game, the average posttest score increased significantly. The normality test analysis shows that the pretest data is not normally distributed with a significance value of 0.040 < 0.05, while the posttest data is normally distributed with a significance value of 0.299 > 0.05. The hypothesis test using the Wilcoxon Signed Rank Test method obtained a significance value of 0.001 < 0.05. Thus, Ha is accepted, meaning that there is a significant effect of using the Wordwall educational game on Madurese language learning outcomes. In addition, the use of the Wordwall educational game has been proven to be effective in improving the Madurese language learning outcomes of fifth-grade students at UPTD SDN

Tanjung Jati 2. The results of the learning implementation observation show that the Wordwall media is able to create a more interactive, enjoyable, and active learning atmosphere in the classroom.

Wordwall can be used as an alternative technology-based learning medium that supports the implementation of the Merdeka Curriculum in elementary schools. Teachers are advised to use Wordwall creatively to make Madurese language learning more interesting and meaningful. Further research can expand the scope by comparing the use of Wordwall with other digital media or combining it with learning models to improve the effectiveness of learning in elementary schools

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