

**PENGARUH MODEL *GAME-BASED LEARNING* BERBANTUAN
WORDWALL TERHADAP PENGETAHUAN MATEMATIKA KELAS 4
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Oleh

I Ketut Adi Paramarta NIM 2211031587

Program Studi Pendidikan Guru Sekolah Dasar

Jurusan Pendidikan Dasar

ABSTRAK

Rendahnya pengetahuan matematika siswa sekolah dasar ditunjukkan melalui kurang optimalnya kemampuan siswa dalam memahami konsep, menerapkan prosedur, dan menyelesaikan permasalahan matematika. Penelitian ini bertujuan untuk menganalisis pengaruh model *Game-Based Learning* berbantuan *Wordwall* terhadap pengetahuan matematika siswa kelas IV sekolah dasar. Jenis penelitian yang digunakan adalah kuantitatif dengan metode eksperimen semu menggunakan desain *Nonequivalent Pretest-Posttest Control Group Design*. Sampel penelitian berjumlah 40 siswa yang terbagi menjadi kelompok eksperimen dan kelompok kontrol. Instrumen yang digunakan berupa tes objektif pengetahuan matematika yang telah diuji validitas dan reliabilitasnya. Data dianalisis menggunakan uji-t dua sampel independen setelah memenuhi uji prasyarat analisis. Hasil uji normalitas menggunakan uji Shapiro-Wilk menunjukkan bahwa data kelompok eksperimen dan kelompok kontrol berdistribusi normal dengan nilai signifikansi masing-masing sebesar 0,266 dan 0,222. Hasil uji homogenitas menggunakan uji Levene menunjukkan bahwa varians kedua kelompok homogen dengan nilai signifikansi sebesar 0,512. Hasil uji hipotesis menggunakan *Independent Samples t-test* menunjukkan bahwa nilai t hitung sebesar 12,097 dengan derajat kebebasan sebesar 38 dan nilai signifikansi (2-tailed) sebesar 0,000 ($< 0,05$), sehingga H_0 ditolak dan H_1 diterima. Hasil tersebut menunjukkan bahwa model *Game-Based Learning* berbantuan *Wordwall* berpengaruh positif dan signifikan terhadap pengetahuan matematika siswa kelas IV sekolah dasar. Temuan ini mengindikasikan bahwa penerapan pembelajaran berbasis permainan yang didukung media interaktif mampu meningkatkan keterlibatan siswa dan membantu siswa memahami konsep matematika secara lebih efektif.

Kata Kunci : *Game-Based Learning*, *Wordwall*, pengetahuan matematika, sekolah dasar.

**THE EFFECT OF GAME-BASED LEARNING MODEL ASSISTED BY
WORDWALL ON MATHEMATICS KNOWLEDGE OF GRADE 4
ELEMENTARY SCHOOL STUDENTS IN GUGUS V ABIANSEMAL IN THE
2025/2026 ACADEMIC YEAR**

By

I Ketut Adi Paramarta ID 2211031587

Elementary School Teacher Education Study Program

Basic Education Department

ABSTRACT

The low level of elementary school students' mathematical knowledge is indicated by their limited ability to understand concepts, apply procedures, and solve mathematical problems. This study aimed to analyze the effect of the Game-Based Learning model assisted by Wordwall on the mathematical knowledge of fourth-grade elementary school students. This study employed a quantitative approach with a quasi-experimental method using the Nonequivalent Pretest-Posttest Control Group Design. The sample consisted of 40 students divided into experimental and control groups. The research instrument was an objective test of mathematical knowledge that had been tested for validity and reliability. Data were analyzed using an independent samples t-test after fulfilling the prerequisite tests. The results of the Shapiro-Wilk normality test showed that the data from the experimental and control groups were normally distributed with significance values of 0.266 and 0.222, respectively. The Levene's test indicated that the variances of both groups were homogeneous with a significance value of 0.512. The results of the independent samples t-test revealed that the obtained t-value was 12.097 with 38 degrees of freedom and a significance value (2-tailed) of 0.000 (< 0.05), indicating that H_0 was rejected and H_1 was accepted. These findings demonstrate that the Game-Based Learning model assisted by Wordwall had a positive and significant effect on the mathematical knowledge of fourth-grade elementary school students. The findings imply that game-based learning supported by interactive media can enhance students' engagement and facilitate a better understanding of mathematical concepts.

Keywords: *Game-Based Learning, Wordwall, mathematical knowledge, elementary school.*