

ABSTRAK

Dinda Mardiah, NIM 4191111063 (2023). Pengaruh Pendekatan Pembelajaran Matematika Realistik Indonesia (PMRI) Berbantuan *Web-Based Slide Articulate Storyline 3* Terhadap Pemahaman Konsep Matematis Siswa SMP

Penelitian ini bertujuan untuk mengetahui: (1) apakah terdapat pengaruh pendekatan Pembelajaran Matematika Realistik Indonesia (PMRI) berbantuan *Web-Based Slide Articulate Storyline 3* terhadap pemahaman konsep matematis siswa SMP; (2) mengetahui berapa besar pengaruh pendekatan Pembelajaran Matematika Realistik Indonesia (PMRI) berbantuan *Web-Based Slide Articulate Storyline 3* terhadap pemahaman konsep matematis siswa SMP; dan (3) mengetahui apakah terdapat pengaruh penggunaan *Web-Based Slide Articulate Storyline 3* secara signifikan terhadap nilai *pretest* dan nilai *posttest* siswa pada kemampuan pemahaman konsep matematis siswa. Penelitian ini dilakukan di MTs. AL Ikhlasiyah Sei Buluh, populasi penelitian terdiri dari seluruh kelas VIII sekolah, yang terdiri dari 3 kelas. Penarikan sampel menggunakan teknik *purposive sampling*, di mana kelas VIII-1 sebagai kelas eksperimen dan kelas VIII-2 sebagai kelas kontrol. Penelitian kuantitatif ini menggunakan metode quasi eksperimen. *Pretest* dan *posttest* adalah instrumen penelitian yang digunakan pada penelitian ini. Data penelitian diolah dengan program SPSS 26. Berdasarkan hasil analisis data: (1) pengujian hipotesis 1 diperoleh rata-rata kemampuan pemahaman konsep matematis kelas eksperimen yaitu 81,5286 sedangkan rata-rata kemampuan pemahaman konsep matematis pada kelas kontrol yaitu 74,1071. Kemudian hasil uji hipotesis menunjukkan bahwa nilai $t_{hitung} > t_{tabel}$ yaitu $2,613 > 1,668$ dan nilai sig. (2-tailed) diperoleh $0,011 < 0,05$ yang artinya H_0 ditolak dan H_a diterima. Berdasarkan hal tersebut, maka dapat disimpulkan bahwa terdapat pengaruh pendekatan Pembelajaran Matematika Realistik Indonesia (PMRI) berbantuan *Web-Based Slide Articulate Storyline 3* terhadap pemahaman konsep matematis siswa; (2) pengujian hipotesis 2 hasil uji *effect size* menunjukkan pengaruh sebesar 73%. Yang berarti bahwa pendekatan Pembelajaran Matematika Realistik Indonesia (PMRI) berbantuan *Web-Based Slide Articulate Storyline 3* terhadap pemahaman konsep matematis siswa memiliki pengaruh yang sedang; (3) pengujian hipotesis 3 uji *paired sample t-test* menunjukkan nilai $-t_{tabel} > -t_{hitung}$ yaitu $-2,032 > -10,324$ dan nilai Sig. (2-tailed) adalah sebesar $0,000 < 0,05$ yang berarti H_0 ditolak dan H_a diterima, maka dapat disimpulkan bahwa ada perbedaan rata-rata antara hasil *pretest* dengan hasil *posttest* kemampuan pemahaman konsep matematis siswa yang artinya terdapat pengaruh penggunaan *Web-Based Slide Articulate Storyline 3* secara signifikan terhadap nilai *pretest* dan nilai *posttest* siswa pada kemampuan pemahaman konsep matematis siswa.

Kata Kunci: Pembelajaran Matematika Realistik Indonesia (PMRI), *Web-Based Slide Articulate Storyline 3*, Pemahaman Konsep.

ABSTRACT

Dinda Mardiah, Nim 4191111063 (2023). The Effect of Indonesian Realistic Mathematics Learning Approach (PMRI) Assisted by *Web-Based Slide Articulate Storyline 3* On Mathematical Concept Understanding of Junior High School Students.

This study aims to determine: (1) whether there is an effect of the Indonesian Realistic Mathematics Learning (PMRI) approach assisted by Web-Based Slide Articulate Storyline 3 on the understanding of mathematical concepts of junior high school students; (2) find out how much influence the Indonesian Realistic Mathematics Learning (PMRI) approach assisted by Web-Based Slide Articulate Storyline 3 on the understanding of mathematical concepts of junior high school students; and (3) find out whether there is a significant effect of using Web-Based Slide Articulate Storyline 3 on students' pretest scores and posttest scores on students' mathematical concept understanding abilities. This research was conducted at MTs. AL Ikhlasiyah Sei Buluh, the study population consisted of all VIII classes of the school, consisting of 3 classes. The sample was drawn using purposive sampling technique, where class VIII-1 as the experimental class and class VIII-2 as the control class. This quantitative research used the quasi-experimental method. Pretest and posttest are research instruments used in this study. Based on the results of data analysis: (1) hypothesis testing 1 obtained the average mathematical concept understanding ability of the experimental class is 81.5286 while the average mathematical concept understanding ability in the control class is 74.1071. Then the results of the hypothesis test show that the value of $t_{count} > t_{table}$ is $2.613 > 1.668$ and the sig value. (2-tailed) obtained $0.011 < 0.05$ which means H_0 is rejected and H_a is accepted. Based on this, it can be concluded that there is an effect of the Indonesian Realistic Mathematics Learning (PMRI) approach assisted by Web-Based Slide Articulate Storyline 3 on students' understanding of mathematical concepts; (2) hypothesis testing 2 the results of the effect size test show an influence of 73%. Which means that the Indonesian Realistic Mathematics Learning (PMRI) approach assisted by Web-Based Slide Articulate Storyline 3 on students' understanding of mathematical concepts has a moderate influence; (3) hypothesis testing 3 paired sample t-test test shows the value of $-t_{table} > -t_{count}$ which is $-2.032 > -10.324$ and the Sig. (2-tailed) is $0.000 < 0.05$ which means H_0 is rejected and H_a is accepted, it can be concluded that there is an average difference between the pretest results and the posttest results of students' mathematical concept understanding ability which means that there is a significant effect of using Web-Based Slide Articulate Storyline 3 on students' pretest scores and posttest scores on students' mathematical concept understanding ability.

Keywords: Indonesian Realistic Mathematics Learning (PMRI), *Web-Based Slide Articulate Storyline 3*, Concept Understanding.