

ABSTRAK

RIKA HAYUNI: Pengaruh Model Pembelajaran Inkuiri Berbasis Soal *Higher Order Thinking Skills* Berbantuan *Wordwall* Terhadap Kemampuan Penalaran Matematis Siswa. **Program Studi Pendidikan Matematika FKIP Universitas Malikussaleh 2025.**

Kemampuan penalaran matematis sangat penting dalam kurikulum matematika karena penalaran matematis dapat menetapkan kebenaran pernyataan matematika dan digunakan untuk membangun argumen matematika. Hasil di lapangan menunjukkan bahwa kemampuan penalaran matematis masih tergolong rendah, dengan nilai rata-rata yang didapatkan sebesar 42%. Sehingga dibutuhkan model pembelajaran inkuiri berbasis soal *higher order tinkling skills* berbantuan *wordwall* sebagai solusi. Penelitian ini bertujuan untuk mengetahui apakah terdapat pengaruh model pembelajaran inkuiri berbasis soal *higher order thinking skills* berbantuan *wordwall* terhadap kemampuan penalaran matematis siswa di SMA Negeri 2 Peusangan.

Penelitian ini merupakan penelitian *quasi eksperimen* dengan pendekatan kuantitatif. Desain yang digunakan dalam penelitian ini adalah *pretest-posttest nonequivalent control group design*. Populasi dalam penelitian ini adalah seluruh siswa kelas XI SMA Negeri 2 Peusangan. Pengambilan sampel dalam penelitian ini dipilih 2 dari 7 kelas menggunakan teknik *purposive sampling*. Sampel dalam penelitian ini adalah kelas XI.2 kelas eksperimen dan kelas XI.4 kelas kontrol. Instrumen pengumpulan data dalam penelitian ini adalah tes kemampuan penalaran matematis siswa yang terdiri dari *pretest* dan *posttest*.

Hasil analisis nilai *pretest* yang dihitung menggunakan uji *independent sample t-test* dengan bantuan *software* SPSS 25, diperoleh nilai *sig.(2-tailed)* $0,973 \geq 0,05$, dengan ini dapat disimpulkan bahwa H_0 diterima atau kedua kelas memiliki kemampuan awal penalaran matematis yang sama atau setara. Berdasarkan hasil analisis nilai *posttest* yang dihitung menggunakan uji *independent sample t-test* dengan bantuan *software* SPSS 25, diperoleh nilai *sig.(2-tailed)* $0,024 < 0,05$, maka H_1 diterima dan H_0 ditolak. Kesimpulan bahwa terdapat pengaruh model pembelajaran inkuiri berbasis soal *higher order thinking skills* berbantuan *wordwall* terhadap kemampuan penalaran matematis siswa.

Kata kunci: Model Pembelajaran Inkuiri, Soal *Higher Order Thinking Skills*, *Wordwall*, Kemampuan Penalaran Matematis

ABSTRACT

RIKA HAYUNI: *The Effect of Inquiry Learning Model Based on Higher Order Thinking Skills Questions Assisted by Wordwall on Students' Mathematical Reasoning Ability. Mathematics Education Study Program, FKIP, Malikussaleh University 2025.*

Mathematical reasoning ability is very important in the mathematics curriculum because mathematical reasoning can determine the truth of mathematical statements and is used to construct mathematical arguments. Field results show that mathematical reasoning ability is still relatively low, with an average score of 42%. Therefore, an inquiry learning model based on higher order thinking skills questions assisted by wordwall is needed as a solution. This study aims to determine whether there is an effect of the inquiry learning model based on higher order thinking skills questions assisted by wordwall on the mathematical reasoning ability of students at SMA Negeri 2 Peusangan.

This study is a quasi-experimental study with a quantitative approach. The design used in this study is a pretest-posttest nonequivalent control group design. The population in this study were all students of class XI of SMA Negeri 2 Peusangan. Sampling in this study was selected 2 out of 7 classes using a purposive sampling technique. The sample in this study was class XI.2 experimental class and class XI.4 control class. The data collection instrument in this study was a test of students' mathematical reasoning abilities consisting of a pretest and posttest.

The results of the pretest value analysis calculated using the independent sample t-test with the help of SPSS 25 software, obtained a sig. (2-tailed) value of $0.973 \geq 0.05$, with this it can be concluded that H_0 is accepted or both classes have the same or equivalent initial mathematical reasoning abilities. Based on the results of the posttest value analysis calculated using the independent sample t-test with the help of SPSS 25 software, obtained a sig. (2-tailed) value of $0.024 < 0.05$, then H_1 is accepted and H_0 is rejected. The conclusion that there is an influence of the inquiry learning model based on higher order thinking skills questions assisted by wordwalls on students' mathematical reasoning abilities.

Keywords: *Inquiry Learning Model, Higher Order Thinking Skills Questions, Wordwall, Mathematical Reasoning Ability*