

ABSTRAK

Annisa Lestari: Pengaruh Strategi *Relating, Experiencing, Applying, Cooperating, Transferring* (REACT) Terhadap Kemampuan Representasi Matematis dan Keaktifan Belajar Matematis Siswa. **Program Studi Pendidikan Matematika FKIP Universitas Malikussaleh, 2025.**

Rendahnya kemampuan representasi dan keaktifan belajar matematis siswa disebabkan oleh beberapa faktor yaitu penggunaan model atau metode pembelajaran konvensional yang masih berfokus pada guru, keterbatasan waktu dan kurikulum serta kurangnya pengajaran yang fokus pada pemahaman konseptual sehingga siswa kurang aktif dalam pembelajaran di kelas serta kurang dalam merepresentasikan ide-ide matematisnya. Oleh karena itu, diperlukan strategi pembelajaran yang dapat membuat siswa aktif dalam pembelajaran serta mampu dalam merepresentasikan ide-ide matematisnya. Penelitian ini bertujuan untuk mengetahui pengaruh strategi REACT terhadap kemampuan representasi matematis dan keaktifan belajar matematis siswa. Penelitian ini merupakan jenis penelitian *quasi experiment* dengan desain *nonequivalent control group design*. Populasi penelitian ini yaitu siswa kelas X MAS Syamsuddhuha. Teknik pengambilan sampel menggunakan *purposive sampling*, dengan kelas terpilih yaitu kelas X-2 sebagai kelas eksperimen dan kelas X-1 sebagai kelas kontrol. Teknik dan instrumen pengumpulan data yang digunakan yaitu tes kemampuan representasi matematis dan angket keaktifan belajar matematis. Pengujian hipotesis pada tes kemampuan representasi menggunakan uji parametrik *independent sample t-test* berbantuan *software* SPSS versi 25 dengan taraf signifikansi 5%. Sedangkan pengujian hipotesis pada non tes berupa angket menggunakan uji non-parametrik *Mann Whitney U* berbantuan *software* SPSS versi 25 dengan taraf signifikansi 5%. Berdasarkan hasil uji hipotesis pada tes kemampuan representasi matematis didapat nilai *Sig. 2-tailed* sebesar 0,000. Sesuai dengan kriteria pengujian hipotesis *Sig. 2-tailed* $< 0,05$, maka H_1 diterima yang artinya terdapat pengaruh yang signifikan strategi pembelajaran REACT terhadap kemampuan representasi matematis siswa. Sedangkan hasil uji hipotesis angket keaktifan belajar matematis didapat nilai *Asymp Sig. 2-tailed* sebesar 0,000. Sesuai dengan kriteria pengujian hipotesis *Asymp Sig. 2-tailed* $< 0,05$, maka H_1 diterima yang artinya terdapat pengaruh yang signifikan strategi pembelajaran REACT terhadap keaktifan belajar matematis siswa.

Kata Kunci: REACT, Kemampuan Representasi Matematis, Keaktifan Belajar Matematis

ABSTRACT

Annisa Lestari: *The Effect of Relating, Experiencing, Applying, Cooperating, Transferring (REACT) Strategy Students' Mathematical Representation Ability and Mathematical Learning Activity. Mathematics Education Study Program FKIP Universitas Malikussaleh, 2025.*

The low representation ability and active learning of mathematics of students is caused by several factors, namely the use of conventional learning models or methods that still focus on teachers, limited time and curriculum and the lack of teaching that focuses on conceptual understanding so that students are less active in learning in the classroom and less in representing their mathematical ideas. Therefore, a learning strategy is needed that can make students active in learning and able to represent their mathematical ideas. This study aims to determine the influence of the REACT strategy on mathematical representation ability and students' mathematical learning activity. This research is a type of quasi experiment research with a nonequivalent control group design. The population of this study is class X students of MAS Syamsuddhuha. The sampling technique used purposive sampling, with the selected class being class X-2 as the experimental class and class X-1 as the control class. The data collection techniques and instruments used were mathematical representation ability tests and mathematical learning activity questionnaires. Hypothesis testing on the representation ability test using an independent sample parametric test t-test assisted by SPSS software version 25 with a significance level of 5%. Meanwhile, the hypothesis testing in the non-test was in the form of a questionnaire using the Mann Whitney U non-parametric test assisted by SPSS software version 25 with a significance level of 5%. Based on the results of the hypothesis test on the mathematical representation ability test, a Sig. 2-tailed value of 0,000. In accordance with the criteria for testing the Sig. 2-tailed $< 0,05$ hypothesis, H_1 was accepted, which means that there is a significant influence of the REACT learning strategy on students' mathematical representation abilities. Meanwhile, the results of the hypothesis test for the mathematical learning activity questionnaire obtained an Asymp Sig. 2-tailed value of 0,000. In accordance with the Asymp Sig. 2-tailed hypothesis test criteria $< 0,05$, H_1 was accepted, which means that there is a significant influence of the REACT learning strategy on students' mathematical learning activity.

Keywords: REACT, Mathematical Representation Ability, Mathematical Learning Activity