

ABSTRAK

Mardiah Hannum Harahap, 1202050068, 2024. “Penerapan Model Pembelajaran *Auditory Intellectually Repetition (AIR)* berbantuan aplikasi *Microsoft Math Solver* untuk Meningkatkan Kemampuan Pemahaman Konsep Matematis Siswa SMP.”

Penelitian ini dilatarbelakangi oleh perlunya peningkatan kemampuan pemahaman konsep matematis siswa yang didukung dari hasil studi pendahuluan yang dilakukan di salah satu sekolah di Kabupaten Bandung. Salah satu alternatif untuk mengatasi hal tersebut yaitu dengan menerapkan model pembelajaran *Auditory Intellectually Repetition (AIR)* berbantuan aplikasi *Microsoft Math Solver*. Penelitian ini menggunakan pendekatan kuantitatif dengan metode *quasi experiment*. Populasi pada penelitian ini sebanyak 4 kelas dengan sampel sebanyak 2 kelas yaitu kelas VII-A sebagai kelas kontrol dan kelas VII-B sebagai kelas eksperimen yang dipilih melalui teknik *cluster random sampling*. Instrumen pengumpulan data penelitian terdiri dari instrumen tes yang telah melewati uji validitas, uji reliabilitas, uji daya beda, dan uji tingkat kesukaran, serta instrumen non tes terdiri dari lembar observasi keterlaksanaan aktivitas guru dan siswa dan lembar angket sikap siswa. Hasil penelitian menunjukkan bahwa, keterlaksanaan aktivitas guru dan siswa pada proses pembelajaran *Auditory Intellectually Repetition (AIR)* berbantuan aplikasi *Microsoft Math Solver* dikategorikan sangat baik, peningkatan kemampuan pemahaman konsep matematis siswa yang menggunakan model pembelajaran *Auditory Intellectually Repetition (AIR)* berbantuan aplikasi *Microsoft Math Solver* lebih baik daripada siswa yang menggunakan model pembelajaran konvensional, sikap siswa terhadap penerapan model pembelajaran *Auditory Intellectually Repetition (AIR)* berbantuan aplikasi *Microsoft Math Solver* dikategorikan positif.

Kata kunci : Kemampuan Pemahaman Konsep Matematis, *Auditory Intellectually Repetition (AIR)*, *Microsoft Math Solver*

ABSTRACT

Mardiah Hannum Harahap, 1202050068, 2024. “Application of the Auditory Intellectually Repetition (AIR) Learning Model Assisted by the Microsoft Math Solver application to Improve the Ability to Understand Mathematical Concepts of Junior High School Students.”

This research is motivated by the need to improve students' ability to understand mathematical concepts supported by the results of a preliminary study conducted in one of the schools in Bandung Regency. One alternative to overcome this is to apply the Auditory Intellectually Repetition (AIR) learning model assisted by the Microsoft Math Solver application. This study uses a quantitative approach with the quasi experiment method. The population in this study is 4 classes with a sample of 2 classes, namely class VII-A as the control class and class VII-B as the experimental class selected through cluster random sampling technique. The research data collection instruments consist of test instruments that have passed the validity test, reliability test, differentiation test, and difficulty level test, as well as non-test instruments consisting of observation sheets of the implementation of teacher and student activities and student attitude questionnaire sheets. The results of the study show that, the implementation of teacher and student activities in the Auditory Intellectually Repetition (AIR) learning process assisted by the Microsoft Math Solver application is categorized as very good, the improvement of students' ability to understand mathematical concepts using the Auditory Intellectually Repetition (AIR) learning model assisted by the Microsoft Math Solver application is better than students who use the conventional learning model, students' attitudes towards the application of the Auditory Intellectually Repetition (AIR) learning model assisted by the Microsoft Math Solver application were categorized as positive.

Keywords : *Ability to Understand Mathematical Concepts, Auditory Intellectually Repetition (AIR), Microsoft Math Solver*