PENGARUH PENERAPAN MODEL PEMBELAJARAN
AUDITORY INTELLECTUALLY REPETITION (AIR)
BERBANTUAN MASALAH KONTEKSTUAL
TERHADAP KEMAMPUAN PEMECAHAN MASALAH
MATEMATIKA SISWA KELAS VIII SMP

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ABSTRAK

Penelitian ini dilatarbelakangi oleh terbatasnya variasi model pembelajarn yang digunakan guru serta minimnya keterkaitan materi dengan konteks kehidupan sehari-hari, yang berdampak pada rendahnya kemampuan pemecahan masalah matematika siswa. Penelitian ini bertujuan untuk mengetahui apakah kemampuan pemecahan masalah matematika siswa yang mengikuti pembelajaran dengan model pembelajaran *Auditory Intellectually Repetition* (AIR) berbantuan masalah kontekstual lebih baik dibandingkan dengan kemampuan pemecahan masalah matematika siswa yang mengikuti pembelajaran konvensional. Metode penelitian yang digunakan adalah eksperimen semu (*quasi experimental*) dengan desain *post-test only control group design*. Populasi penelitian mencakup seluruh siswa kelas VIII SMP Negeri 5 Singaraja tahun ajaran 2025/2026 yang terdiri atas 10 kelas dengan jumlah keseluruhan sebanyak 317 siswa. Pemilihan sampel dilakukan menggunakan teknik *cluster random sampling*, sehingga terpilih dua kelas sebagai sampel penelitian, masing-masing berjumlah 32 siswa. Kelas VIII B ditetapkan sebagai kelas eksperimen yang menerapkan model pembelajaran AIR berbantuan masalah kontekstual, sedangkan kelas VIII C sebagai kelas kontrol yang menggunakan pembelajaran konvensional. Pengumpulan data dilakukan melalui tes uraian sebanyak lima soal untuk mengukur kemampuan pemecahan masalah matematika siswa. Uji hipotesis dianalisis menggunakan uji t (*independent samples test*) dengan taraf signifikansi 5%. Hasil analisis menunjukkan nilai Sig. sebesar 0,0005 dimana nilai Sig. $< 0,05$ yang artinya H_0 ditolak dan H_1 diterima. Rata-rata nilai *post-test* kelas eksperimen sebesar 76,38 sedangkan kelas kontrol memperoleh rata-rata sebesar 60,19. Temuan ini menunjukkan bahwa penerapan model pembelajaran AIR berbantuan masalah kontekstual memberikan pengaruh yang signifikan terhadap kemampuan pemecahan masalah matematika siswa. Dengan demikian, dapat disimpulkan bahwa kemampuan pemecahan masalah matematika siswa yang mengikuti pembelajaran dengan model AIR berbantuan masalah kontekstual lebih baik dibandingkan dengan siswa yang mengikuti pembelajaran konvensional.

Kata kunci: AIR, Masalah Kontekstual, Kemampuan Pemecahan Masalah

THE EFFECT OF THE IMPLEMENTATION OF THE AUDITORY INTELLECTUALLY REPETITION (AIR) LEARNING MODEL ASSISTED BY CONTEXTUAL PROBLEMS ON THE MATHEMATICAL PROBLEM-SOLVING ABILITY OF EIGHTH-GRADE JUNIOR HIGH SCHOOL STUDENTS

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ABSTRACT

This study was motivated by the limited variation of learning models used by teachers and the lack of connection between learning materials and real-life contexts, which has resulted in the low level of students' mathematical problem-solving abilities. The purpose of this study was to determine whether the mathematical problem-solving abilities of students who learned through the Auditory Intellectually Repetition (AIR) learning model assisted by contextual problems were better than those of students who learned through conventional learning. This study employed a quasi-experimental method with a post-test only control group design. The population consisted of all eighth-grade students of SMP Negeri 5 Singaraja in the 2025/2026 academic year, comprising 10 classes with a total of 317 students. The sample was selected using the cluster random sampling technique, resulting in two classes being chosen as the research samples, each consisting of 32 students. Class VIII B was designated as the experimental class, which was taught using the AIR learning model assisted by contextual problems, while class VIII C served as the control class and was taught using conventional learning. Data were collected through an essay test consisting of five questions to measure students' mathematical problem-solving abilities. Hypothesis testing was conducted using the independent samples t-test with a significance level of 5%. The results showed a significance value (Sig.) of 0.0005, where Sig. < 0.05, indicating that H_0 was rejected and H_1 was accepted. The average post-test score of the experimental class was 76.38, while the control class obtained an average score of 60.19. These findings indicate that the implementation of the AIR learning model assisted by contextual problems had a significant effect on students' mathematical problem-solving abilities. Therefore, it can be concluded that the mathematical problem-solving abilities of students who learned through the AIR learning model assisted by contextual problems were better than those of students who learned through conventional learning.

Keywords: AIR; Contextual Problems; Problem Solving Ability