

**PENGARUH PENERAPAN MODEL PEMBELAJARAN *AUDITORY*,
INTELLECTUALLY, *REPETITION* BERORIENTASI MASALAH
MATEMATIKA REALISTIK TERHADAP KEMAMPUAN PEMAHAMAN
KONSEP MATEMATIKA SISWA SMP NEGERI 1 SELEMADEG**

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ABSTRAK

Pada kegiatan belajar matematika, penting untuk mengembangkan kemampuan pemahaman konsep siswa. Model yang bisa dipergunakan pada upaya menambah kemampuan pemahaman konsep matematika siswa ialah model *Auditory, Intellectually, Repetition* (AIR). Sebagai upaya untuk memaksimalkan penerapannya, model pembelajaran AIR ini dikolaborasikan dengan masalah matematika realistik. Penelitian ini dilaksanakan guna melihat apakah kemampuan pemahaman konsep matematika siswa yang menempuh kegiatan belajar dengan mempergunakan model AIR berorientasi masalah matematika realistik lebih baik dibandingkan dengan kemampuan pemahaman konsep matematika siswa menempuh kegiatan belajar dengan mempergunakan model konvensional. Metode *quasi experiment* dengan *post test only control group design* digunakan pada penelitian ini. Sebanyak 184 siswa kelas VIII SMP Negeri 1 Selemadeg merupakan populasi dengan sampel yang diambil ialah 32 siswa dari kelas VIII B selaku kelas eksperimen dan 32 siswa kelas VIII C selaku kelas kontrol. Kelas eksperimen dibelajarkan menggunakan penerapan model pembelajaran AIR berorientasi masalah matematika realistik, sedangkan kelas kontrol dengan pembelajaran konvensional yaitu model ekspositori. Dalam mengumpulkan data, digunakan teknik tes dengan jenis soal tipe uraian. Uji Hipotesis menggunakan perhitungan uji *independent samples t-test* dengan $\alpha = 0.05$. Berlandaskan pada hasil analisis penelitian didapatkan $t_{hitung} = 8,516 > t_{tabel} = 1,670$, serta perolehan rerata skor *post test* pada kelas eksperimen ialah 76,17 dan rerata skor *post test* pada kelas kontrol yaitu 51,66. Hasil ini bermakna bahwasanya kemampuan pemahaman konsep matematika siswa menempuh kegiatan belajar dengan mempergunakan model AIR berorientasi masalah matematika realistik lebih baik dibanding dengan kegiatan belajar konvensional. Berdasarkan hal tersebut, model kegiatan belajar AIR berorientasi masalah matematika realistik memberikan pengaruh atau dampak yang positif terhadap kemampuan pemahaman konsep matematika siswa di SMP Negeri 1 Selemadeg.

Kata kunci: Model Pembelajaran AIR, Masalah Matematika Realistik, Pemahaman Konsep Matematika

**THE EFFECT OF THE APPLICATION OF AUDITORY,
INTELLECTUALLY, REPETITION LEARNING MODEL ORIENTED TO
REALISTIC MATHEMATICS PROBLEMS ON THE ABILITY TO
UNDERSTAND MATHEMATICAL CONCEPTS OF
SMP NEGERI 1 SELEMADEG STUDENTS**

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ABSTRACT

In math learning activities, it is important to develop students' concept understanding ability. The model that can be used in an effort to increase the ability of students' understanding of mathematical concepts is the Auditory, Intellectually, Repetition (AIR) model. As an effort to maximize its application, this AIR learning model is collaborated with realistic mathematics problems. This research was conducted to see whether the ability of understanding mathematical concepts of students who take learning activities by using AIR model oriented with realistic mathematics problems is better than the ability of understanding mathematical concepts of students who take learning activities by using conventional model. The quasi experiment method with post test only control group design was used in this research. A total of 184 students of class VIII SMP Negeri 1 Selemadeg were the population with the samples taken were 32 students from class VIIIB as the experimental class and 32 students from class VIIC as the control class. The experimental class was taught using the application of realistic mathematics problem-oriented AIR learning model, while the control class with conventional learning, namely the expository model. In collecting data, test technique was used with description type questions. Hypothesis testing used independent samples t-test calculation with $\alpha = 0.05$. Based on the results of the research analysis, it was found that $t_{hitung} = 8.516 > t_{tabel} = 1.670$, and the average post test score in the experimental class was 76.17 and the average post test score in the control class was 51.66. This result means that the ability to understand mathematical concepts of students taking learning activities by using AIR model oriented to realistic mathematics problems is better than conventional learning activities. Based on this, the AIR model of learning activities oriented to realistic mathematics problems has a positive influence or impact on the ability to understand mathematical concepts of students at SMP Negeri 1 Selemadeg.

Keywords: *AIR Learning Model, Realistic Mathematics Problems, Mathematics Concept Understanding*