

ABSTRAK

Adi Palguna, I Made (2020), *Pengaruh model pembelajaran Auditory, Intellectually, Repetition berbantuan media pembelajaran I-Spring terhadap motivasi dan kemampuan pemecahan masalah matematika siswa SMA*. Tesis, Teknologi Pembelajaran, Program Pascasarjana, Universitas Pendidikan Ganesha.

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Kata-kata kunci: AIR, Direct Instruction, I-Spring, Motivasi, Kemampuan Pemecahan Masalah Matematika

Penelitian ini bertujuan untuk mendeskripsikan (1) perbedaan motivasi belajar dan kemampuan pemecahan masalah antara siswa yang belajar dengan menggunakan model pembelajaran AIR berbantuan media pembelajaran *I-Spring*, siswa yang belajar dengan model pembelajaran AIR dan siswa yang belajar dengan model pembelajaran *Direct Instruction*, (2) perbedaan motivasi belajar antara siswa yang belajar dengan menggunakan model pembelajaran AIR berbantuan media pembelajaran *I-Spring*, siswa yang belajar dengan model pembelajaran AIR dan siswa yang belajar dengan model pembelajaran *Direct Instruction*, (3) perbedaan kemampuan pemecahan masalah antara siswa yang belajar dengan menggunakan model pembelajaran AIR berbantuan media pembelajaran *I-Spring*, siswa yang belajar dengan model pembelajaran AIR dan siswa yang belajar dengan model pembelajaran *Direct Instruction*. Penelitian eksperimen semu ini mengambil populasi sebanyak 15 kelas dengan jumlah siswa sebanyak 500 orang di kelas XI SMA Negeri 2 Mengwi Tahun Pelajaran 2019/2020. Sampel ditentukan dengan teknik *cluster random sampling*. Berdasarkan hasil *cluster random sampling*, diambil 3 kelas dari 15 kelas yang ada dengan jumlah sampel penelitian sebanyak 96 orang. Kelas yang terpilih sebagai sampel penelitian adalah kelas XI MIPA 4 menggunakan model pembelajaran AIR berbantuan media pembelajaran *I-Spring*, kelas XI MIPA 2 menggunakan model pembelajaran AIR, dan kelas XI MIPA 6 menggunakan model pembelajaran *Direct Instruction*. Data motivasi belajar dikumpulkan dengan kuesioner sedangkan data kemampuan pemecahan masalah dikumpulkan dengan tes berbentuk uraian. Data penelitian dianalisis dengan menggunakan uji statistik *multivariate analysis of covariance* (MANCOVA).

Hasil penelitian menunjukkan bahwa: (1) terdapat perbedaan antara motivasi belajar dan kemampuan pemecahan masalah siswa secara bersama-sama antara siswa yang menggunakan model pembelajaran AIR berbantuan media pembelajaran *I-Spring*, model pembelajaran AIR, dan model pembelajaran *Direct Instruction*; (2) terdapat perbedaan motivasi belajar antara siswa yang belajar dengan menggunakan model pembelajaran AIR berbantuan media pembelajaran *I-Spring*, model pembelajaran AIR, dan model pembelajaran *Direct Instruction*, motivasi belajar siswa yang menggunakan model pembelajaran AIR berbantuan media pembelajaran *I-Spring* lebih baik dibandingkan dengan motivasi belajar siswa yang menggunakan model pembelajaran AIR, dan model pembelajaran *Direct Instruction*; (3) terdapat perbedaan kemampuan pemecahan masalah antara siswa yang belajar dengan menggunakan model pembelajaran AIR berbantuan media

pembelajaran *I-Spring*, model pembelajaran *AIR*, dan model pembelajaran *Direct Instruction*, kemampuan pemecahan masalah siswa yang menggunakan model pembelajaran *AIR* berbantuan media pembelajaran *I-Spring* lebih baik dibandingkan dengan kemampuan pemecahan masalah siswa yang menggunakan model pembelajaran *AIR*, dan model pembelajaran *Direct Instruction*.



ABSTRACT

Adi Palguna, I Made (2020), *The effect of learning model Auditory, Intellectually, Repetition based learning media I-spring on motivation and problem solving skills mathematics of high school student*. Thesis, Learning Technology, Post Graduate Study Program, Ganesha University of Education.

This thesis has been supervised and approved by Supervisor I: Dr. Ni Nyoman Parwati, M.Pd and Supervisor II: Dr. Dewa Gede Hendra Divayana, S.Kom., M.Kom.

Key words: AIR, Direct Instruction, I-Spring, Motivation, Mathematical Problem Solving Ability

This study aims to describe (1) differences in learning motivation and problem solving abilities between students who learn using the *AIR* learning model assisted by the *I-Spring* learning media, students who learn with the *AIR* learning model and students who learn with the *Direct Instruction* learning model, (2) differences in learning motivation between students who learn by using the *AIR* learning model assisted by the *I-Spring* learning media, students who learn with the *AIR* learning model and students who learn with the *Direct Instruction* learning model, (3) differences in problem solving abilities between students who learn by using the *AIR* learning model is assisted by the *I-Spring* learning media, students who learn with the *AIR* learning model and students who learn with the *Direct Instruction* learning model. This quasi-experimental study took a population of 15 classes with a total of 500 students in class XI of SMA Negeri 2 Mengwi in the 2019/2020 Academic Year. The sample is determined by the cluster random sampling technique. Based on the results of the cluster random sampling, 3 classes out of 15 classes were taken with a total sample of 96 people. The class chosen as the research sample is Class XI MIPA 4 using the *AIR* learning model assisted by the *I-Spring* learning media, Class XI MIPA 2 uses the *AIR* learning model, and Class XI MIPA 6 uses the *Direct Instruction* learning model. Data on learning motivation was collected by questionnaire while data on problem solving ability was collected by test in the form of description. The research data were analyzed using multivariate analysis of covariance (MANCOVA) statistical tests.

The results showed that: (1) there was a difference between students' learning motivation and problem solving abilities together between students who used the *AIR* learning model assisted by the *I-Spring* learning media, the *AIR* learning model, and the *Direct Instruction* learning model; (2) there are differences in learning motivation between students who learn by using the *AIR* learning model assisted by the *I-Spring* learning media, the *AIR* learning model, and the *Direct Instruction* learning model, students' learning motivation using the *AIR* learning model assisted by the *I-Spring* learning media is better than with student motivation to use the *AIR* learning model, and the *Direct Instruction* learning model; (3) there are differences in problem solving abilities between students learning by using the *AIR* learning model assisted by the *I-Spring* learning media, the *AIR* learning model, and the *Direct Instruction* learning model, the problem solving abilities of students who use the *AIR* learning models are assisted by the *I-Spring* learning media more

both compared to the problem solving abilities of students who use the *AIR* learning model, and the *Direct Instruction* learning model.

