

PENERAPAN MODEL PEMBELAJARAN *ARGUMENT-DRIVEN INQUIRY* DENGAN PENDEKATAN MULTIREPRESENTASI UNTUK MENINGKATKAN KEMAMPUAN PENALARAN ILMIAH DAN KETERAMPILAN BEREKSPERIMEN SISWA PADA MATERI SIFAT ELASTISITAS BAHAN

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ABSTRAK

Penelitian ini bertujuan untuk memperoleh gambaran peningkatan kemampuan penalaran ilmiah dan keterampilan bereksperimen siswa setelah diterapkan model pembelajaran *argument-driven inquiry* dengan pendekatan multirepresentasi. Metode yang digunakan adalah metode *quasi experiment* dengan desain penelitian *Matching-Only Pretest-Posttest Control Group Design*. Sampel penelitian adalah siswa SMA kelas XI IPA. Instrumen yang digunakan dalam penelitian adalah instrumen tes penalaran ilmiah dan instrumen tes keterampilan bereksperimen. Analisis data hasil penelitian menggunakan perhitungan rata-rata *N-gain*, Uji *Independent sample T-test* dan korelasi *Pearson product moment*. Hasil penelitian menunjukkan bahwa model pembelajaran *argument-driven inquiry* dengan pendekatan multirepresentasi dapat meningkatkan kemampuan penalaran ilmiah dan keterampilan bereksperimen siswa.

Kata kunci : Model Pembelajaran *Argument-Driven Inquiry*, Kemampuan Penalaran Ilmiah, Keterampilan Bereksperimen

**THE APPLICATION OF ARGUMENT-DRIVEN INQUIRY LEARNING
MODEL WITH MULTIREPRESENTATION APPROACH TO IMPROVE
STUDENTS SCIENTIFIC REASONING ABILITY AND EXPERIMENTAL
SKILLS ON ELASTICITY MATERIAL**

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ABSTRACT

This study aims to obtain an overview of the enhancement of scientific reasoning ability and students' experimental skills after applying an argument-driven inquiry learning model with multirepresentation approach. The method used is quasi experiment method with Matching-Only Pretest-Posttest Control Group Design. The sample of research is high school student of class XI IPA. The instruments used in the research are scientific reasoning test instruments and experimental skill test instruments. Data analysis of research result using N-gain average calculation, Independent sample T-test and Pearson product moment correlation. The results show that argument-driven inquiry model with multirepresentation approach can improve the ability of scientific reasoning and students' experimental skills.

Keywords : Argument-Driven Inquiry Learning Model, Scientific Reasoning Ability, Experimental Skills