

ABSTRAK

MAYA PUSPITA. 2025. **PENGARUH MODEL PEMBELAJARAN *ARGUMENT-DRIVEN INQUIRY* (ADI) TERHADAP KEMAMPUAN ARGUMENTASI ILMIAH DAN *SELF-EFFICACY* SISWA PADA PEMBELAJARAN BIOLOGI (Studi Eksperimen di Kelas X SMA Negeri 1 Ciamis Tahun Ajaran 2024/2025).** Jurusan Pendidikan Biologi. Fakultas Keguruan dan Ilmu Pendidikan. Universitas Siliwangi.

Kemampuan argumentasi penting dilatihkan pada era revolusi industri 4.0 agar individu mampu memilah informasi secara tepat berdasarkan bukti. Selain itu, kecemasan dalam pembelajaran akibat evaluasi sosial menuntut adanya aspek psikologis yang mendukung keberhasilan belajar, salah satunya adalah *self-efficacy*. Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran *Argument-Driven Inquiry* (ADI) terhadap kemampuan argumentasi ilmiah dan *self-efficacy* siswa kelas X pada mata pelajaran Biologi di SMA Negeri 1 Ciamis. Penelitian dilaksanakan pada Agustus 2024 s.d. Juli 2025. Penelitian ini menggunakan metode *quasi eksperimen* dengan *matching only posttest-only control group design*. Populasi penelitian adalah seluruh siswa kelas X SMA Negeri 1 Ciamis sebanyak 12 kelas yang berjumlah 432 orang. Sampel diambil dengan teknik *purposive sampling*, kelas XE-8 sebagai kelas eksperimen dan kelas XE-6 sebagai kelas kontrol. Instrumen yang digunakan berupa tes uraian sebanyak 14 soal untuk mengukur kemampuan argumentasi ilmiah dan angket non-tes sebanyak 28 item pernyataan untuk mengukur *self-efficacy*, keduanya telah teruji validitas dan reliabilitasnya. Analisis data menggunakan uji *One Way ANOVA* dengan taraf signifikansi $\alpha = 0,05$. Hasil analisis menunjukkan bahwa nilai signifikansi untuk kemampuan argumentasi ilmiah adalah $0,000 < 0,05$ dan untuk *self-efficacy* sebesar $0,033 < 0,05$. Penelitian ini dapat disimpulkan bahwa ada pengaruh model pembelajaran *Argument-Driven Inquiry* (ADI) terhadap kemampuan argumentasi ilmiah dan *self-efficacy* siswa pada pembelajaran biologi.

Kata Kunci: *Argument-Driven Inquiry*, Argumentasi Ilmiah, Biologi, *Self-Efficacy*.

ABSTRACT

MAYA PUSPITA. 2025. ***THE EFFECT OF THE ARGUMENT-DRIVEN INQUIRY (ADI) LEARNING MODEL ON STUDENTS' SCIENTIFIC ARGUMENTATION SKILLS AND SELF-EFFICACY IN BIOLOGY LEARNING (an Experimental Study in Grade X at SMA Negeri 1 Ciamis Academic Year 2024/2025)***. Department of Biology Education, Faculty of Teacher Training and Education, Siliwangi University.

Argumentation skills are essential to be trained in the era of the Industrial Revolution 4.0, so that individuals can sort information appropriately based on evidence. In addition, anxiety in learning due to social evaluation requires psychological aspects that support learning success, one of which is self-efficacy. This study aims to determine the effect of the Argument-Driven Inquiry (ADI) learning model on the scientific argumentation skills and self-efficacy of students in Class X Biology at SMA Negeri 1 Ciamis. The study was conducted in August 2024 to July 2025. This study used a quasi-experimental method with a matching-only posttest-only control group design. The study population consisted of all Class X students at SMA Negeri 1 Ciamis, comprising 12 classes and a total of 432 individuals. The sample was taken using a purposive sampling technique, class XE-8 as the experimental class and class XE-6 as the control class. The instruments used were essay tests consisting of 14 questions to measure scientific argumentation skills and a non-test questionnaire consisting of 28 statement items to measure self-efficacy, both of which have been tested for validity and reliability. Data analysis using One Way ANOVA test with a significance level of $\alpha = 0.05$. The results of the analysis show that the significance value for scientific argumentation ability is $0.000 < 0.05$ and for self-efficacy is $0.033 < 0.05$. This study concluded that there is an influence of the Argument-Driven Inquiry (ADI) learning model on students' scientific argumentation ability and self-efficacy in biology learning.

Keywords: *Argument-Driven Inquiry (ADI), Biology, Scientific Argumentation Skills, Self-Efficacy.*