

## ABSTRAK

### **Ike Ardianti : “Perbandingan Keterampilan Argumentasi Ilmiah Dengan Menggunakan Model Pembelajaran *Discovery Learning* Dan *Argument Driven Inquiry* (ADI) Pada Materi Sistem Gerak”**

Keterampilan argumentasi ilmiah merupakan kompetensi penting dalam pembelajaran yang berperan dalam mengembangkan kemampuan berpikir kritis, logis, dan sistematis siswa. Model *Discovery Learning* dan *Argument Driven Inquiry* (ADI) diketahui dapat meningkatkan keterampilan tersebut. Penelitian ini bertujuan untuk menganalisis perbedaan keterampilan argumentasi ilmiah siswa menggunakan model pembelajaran *Discovery Learning* dan *Argument Driven Inquiry* (ADI) pada materi Sistem Gerak. Penelitian ini dilaksanakan di MAN 2 Tasikmalaya pada bulan Juli sampai Agustus 2025. Metode yang digunakan adalah *Quasi Eksperimental Design* dengan desain komparasi. Instrumen penelitian meliputi lembar observasi keterlaksanaan guru dan siswa, soal uraian berindikator keterampilan argumentasi ilmiah melalui *pretest* dan *posttest*, serta angket kendala. Hasil penelitian menunjukkan bahwa keterlaksanaan aktivitas guru dan siswa pada kelas *Discovery Learning* masing-masing sebesar 91% dan 87%, sedangkan pada kelas (ADI) sebesar 92% dan 90%. Peningkatan keterampilan argumentasi ilmiah pada kelas *Discovery Learning* sebesar 0,63 (sedang), sedangkan pada kelas *Argument Driven Inquiry* (ADI) sebesar 0,44 (sedang). Hasil angket kendala pada kelas *Discovery Learning* menunjukkan persentase sebesar 21,26% (sebagian kecil), sedangkan pada kelas *Argument Driven Inquiry* (ADI) sebesar 14,92% (sebagian kecil). Hasil uji hipotesis menggunakan *Mann-Whitney* menunjukkan nilai Sig. (2-tailed) = 0,001 < 0,05, yang berarti terdapat perbedaan signifikan antara kedua model pembelajaran terhadap peningkatan keterampilan argumentasi ilmiah siswa. Penelitian ini dapat menjadi alternatif bagi guru dalam memilih model pembelajaran yang tepat serta menjadi referensi bagi penelitian selanjutnya.

**Kata Kunci:** *Argument Driven Inquiry*, *Discovery Learning*, Keterampilan Argumentasi Ilmiah, Sistem Gerak.

## ABSTRACT

**Ike Ardianti : “Comparison of Scientific Argumentation Skills Using Discovery Learning and Argument Driven Inquiry (ADI) Learning Models on the Material of the Movement System”**

Scientific argumentation skills are important competencies in learning that play a role in developing students' critical, logical, and systematic thinking abilities. Discovery Learning and Argument Driven Inquiry (ADI) models are known to enhance these skills. This study aimed to analyze the differences in students' scientific argumentation skills using Discovery Learning and Argument Driven Inquiry (ADI) models on the topic of the human movement system. This research was conducted at MAN 2 Tasikmalaya from July to August 2025. The method used was a quasi-experimental design with a comparative design. The research instruments included observation sheets of teacher and student activities, essay questions based on scientific argumentation skill indicators through pretests and posttests, and a learning constraint questionnaire. The results showed that the implementation of teacher and student activities in the Discovery Learning class reached 91% and 87%, respectively, while in the ADI class they reached 92% and 90%. The improvement in scientific argumentation skills in the Discovery Learning class was 0.63 (moderate category), while in the Argument Driven Inquiry (ADI) class it was 0.44 (moderate category). The learning constraint questionnaire results indicated that the percentage in the Discovery Learning class was 21.26% (small category), while in the ADI class it was 14.92% (small category). The hypothesis testing using the Mann-Whitney test showed a Sig. (2-tailed) value of  $0.001 < 0.05$ , indicating a significant difference between the two learning models in improving students' scientific argumentation skills. This research can be an alternative for teachers in choosing the right learning model and can be a reference for further research.

**Keywords: Argument Driven Inquiry, Discovery Learning, Motor System, Scientific Argumentation Skills**