

Fabila Resti Marinda, 2023. Penerapan Model Pembelajaran Discovery Learning Berbantuan Media AR pada Materi Tata Surya untuk Meningkatkan Keterampilan Berpikir Kritis Siswa. Skripsi, Program Studi Pendidikan IPA, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: Aditya Rakhmawan.

## ABSTRAK

Berpikir kritis merupakan salah satu keterampilan yang dibutuhkan dalam menghadapi tantangan era industri 4.0. Model pembelajaran *discovery learning* yang berpusat pada siswa dengan cara siswa menemukan sendiri konsep yang dipelajari, sedangkan media AR dapat memberikan gambaran 3D kepada siswa tentang kombinasi dunia nyata dan dunia maya yang dilihat dari waktu dan lokasi yang sama. Penelitian ini bertujuan untuk mengetahui pengaruh dan peningkatan keterampilan berpikir kritis siswa setelah penerapan model pembelajaran *discovery learning* berbantuan media AR serta keterlaksanaan dan respons siswa dengan penerapan model pembelajaran *discovery learning* berbantuan media AR pada materi tata surya kelas VII SMP. Metode penelitian yang digunakan pada penelitian ini yaitu quasi eksperimen. Teknik pemilihan sampel pada penelitian ini yaitu menggunakan teknik *Purposive Sampling* yang dilaksanakan di SMP Negeri 1 Kamal Tahun 2022/2023. Uji hipotesis menggunakan uji *Mann-Whitney*, dan analisis peningkatan keterampilan berpikir kritis siswa menggunakan uji *N-Gain Score*. Hasil penelitian menunjukkan bahwa keterlaksanaan pembelajaran model pembelajaran *discovery learning* berbantuan media AR berada pada kategori sangat baik. Penerapan model pembelajaran *discovery learning* berbantuan media AR berpengaruh terhadap keterampilan berpikir kritis siswa. Peningkatan keterampilan berpikir kritis siswa berdasarkan uji *N-Gain Score* pada kelas eksperimen berada pada kategori sedang, sedangkan pada kelas kontrol berada pada kategori rendah. Hasil angket respons siswa terhadap penerapan model pembelajaran *discovery learning* berbantuan media AR berada pada kategori baik. Kesimpulan dari penelitian ini yaitu penerapan model pembelajaran *discovery learning* berbantuan media AR pada materi tata surya dapat membuat siswa aktif dalam pembelajaran dan meningkatkan keterampilan berpikir kritis siswa.

**Kata Kunci:** *Augmented Reality*, *discovery learning*, keterampilan berpikir kritis, tata surya

Fabila Resti Marinda, 2023. *Application of The Discovery Learning Model Assisted by AR Media on Solar System Material to Improve Students' Critical Thinking Skills*. Thesis, Science Education Study Program, Faculty of Education, University of Trunojoyo Madura. Advisor: Aditya Rakhmawan.

## ABSTRACT

Critical thinking is one of the skills required to face the challenges of the industrial era 4.0. The discovery learning model is student centered by means of students discovering the concepts themselves, while AR media can provide students with a 3D picture of a combination of the real world and the virtual world seen from the same time and location. This study aims to determine the effect and improvement of students' critical thinking skills after the application of the AR media assisted discovery learning model as well as the implementation and response of students by applying the AR media assisted discovery learning model to the solar system material for class VII SMP. The research method used in this study is a quasi-experimental research design. The sample selection technique in this study was to use a purposive sampling technique which was carried out at SMP Negeri 1 Kamal in 2022/2023. Hypothesis testing used the Mann-Whitney test, and analysis of students' critical thinking skills improvement used the N-Gain Score test. The results of the study show that the learning implementation of the discovery learning model assisted by AR media is in the very good category. Hypothesis testing used the Mann-Whitney test, and analysis of students' critical thinking skills improvement using the N-Gain Score test. The results of the study showed that the learning implementation of the discovery learning model assisted by AR media is in the very good category. The application of the AR media-assisted discovery learning model has an effect on students' critical thinking skills. The improvement of students' critical thinking skills based on the N-Gain Score test in the experimental class was in the medium category, while in the control class it was in the low category. The results of the student response questionnaire on the application of the AR media-assisted discovery learning model were in the good category. The conclusion of this study was that application of the discovery learning model assisted by AR media on solar system can make students active in learning and increase students' critical thinking skills.

**Keyword:** *Augmented Reality, critical thinking skill, discovery learning, solar system*

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