

Siti Marsi'ah. 2024. *Pengembangan Perangkat Pembelajaran Berpola Toulmin Untuk Melatih Keterampilan Argumentasi Ilmiah Siswa Melalui Model ADI Berpendekatan Eksperimen*. Skripsi, Program Studi Pendidikan IPA, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing : Aditya Rakhmawan.

ABSTRAK

Penelitian ini bertujuan untuk menghasilkan perangkat pembelajaran berpola Toulmin untuk melatih keterampilan argumentasi ilmiah melalui model ADI berpendekatan eksperimen. Perangkat pembelajaran yang dikembangkan berupa modul ajar, LKPD, infografis, dan tes argumentasi ilmiah. Pengembangan perangkat pembelajaran ini menggunakan model pengembangan 4D, yang terdiri dari *Define, Design, Develop* dan *Disseminate*, namun pada pelaksanaannya penelitian ini hanya pada *validation testing* pada tahap *dessiminate*. Sampel penelitian meliputi 15 peserta didik kelas VIII C di UPTD SMPN 1 Sepulu, yang dipilih melalui teknik *purposive sampling*. Teknik pengumpulan data menggunakan angket, wawancara, observasi dan dokumentasi. Berdasarkan hasil penelitian diperoleh perangkat pembelajaran yang dikembangkan memiliki rata-rata validitas masing-masing untuk modul ajar yaitu 95%, LKPD 93%, infografis 92%, tes argumentasi ilmiah 92% dengan kriteria sangat layak dan reliabilitas masing-masing, yaitu modul ajar 96%, LKPD 96%, infografis 96%, dan tes argumentasi ilmiah soal 95% dengan kriteria sangat reliabel. Hasil *N-Gain Score* argumentasi ilmiah siswa sebesar 0,7 dengan kriteria tinggi. Rata-rata keterbacaan sebesar 99% dengan kriteria sangat terbaca. Rata-rata respons siswa sebesar 92% dengan kriteria sangat baik.

Kata kunci : Argumentasi ilmiah siswa, eksperimen, model ADI, perangkat pembelajaran, pola Toulmin.

Siti Marsi'ah. 2024. *Development of Toulmin-Patterned Learning Tools to Train Students' Scientific Argumentation Skills through the Experiment-Advanced ADI Model*. Thesis, Science Education Study Program, Faculty of Education, Trunojoyo University Madura. Advisor: Aditya Rakhmawan.

ABSTRACT

This research aims to produce a Toulmin pattern learning tool to train scientific argumentation skills through the ADI model using an experimental approach. The learning tools developed include teaching modules, LKPD, infographics and scientific argumentation tests. The development of this learning tool uses a 4D development model, which consists of Define, Design, Develop and Disseminate, but in its implementation this research only focuses on validation testing at the disseminate stage. The research sample included 15 students in class VIII C at UPTD SMPN 1 Sepulu, who were selected using a purposive sampling technique. Data collection techniques use questionnaires, interviews, observation and documentation. Based on the research results, it was found that the learning tools developed had an average validity of each for the teaching module, namely 95%, LKPD 93%, infographics 92%, scientific argumentation test 92% with very feasible criteria and reliability respectively, namely the teaching module 96 %, LKPD 96%, infographics 96%, and scientific argumentation test questions 95% with very reliable criteria. The results of the N-Gain Score for students' scientific arguments were 0.7 with high criteria. Average readability is 99% with very readable criteria. The average student response was 92% with very good criteria.

Keywords: *student's scientific argumentation, experiment, ADI model, learning tools, Toulmin's pattern.*