

ABSTRAK

Hana Daforosa R. Siagian. Pengembangan Alat Peraga Indeks Bias Berbantuan *Logger Pro* di SMA

Pemanfaatan kecanggihan teknologi saat proses pembelajaran sangat penting dalam menganalisis fenomena indeks bias yang bersifat abstrak. Perkembangan teknologi perangkat lunak yang makin pesat, membuat media pembelajaran berupa alat praktikum juga berkembang, yaitu perangkat lunak yang membantu dalam percobaan fisika. *Logger Pro* merupakan perangkat lunak yang dimanfaatkan sebagai media percobaan fisika. Penelitian ini bertujuan untuk mengembangkan alat peraga indeks bias berbantuan *logger pro* yang valid, praktis, dan efektif sebagai media pembelajaran fisika. Metode penelitian yang diterapkan adalah Penelitian dan Pengembangan (*Research and Development*), dengan menggunakan tahapan *Analyze Design Develop Implement Evaluate* (ADDIE). Desain penelitian adalah *pre-eksperimental design* dengan tipe *one-shot case study*. Penelitian dilaksanakan di SMAN 11 Medan Tahun Pelajaran 2021/2022. Hasil kevalidan alat peraga berdasarkan ahli media dengan persentase nilai 92,3% dengan kategori sangat valid. Hasil kepraktisan alat peraga berdasarkan respon siswa terhadap alat peraga memperoleh persentase nilai 95,6% dengan kategori sangat praktis. Hasil keefektifan alat peraga berdasarkan hasil ketuntasan belajar klasikal sebesar 89,2% siswa tuntas dan hasil keterlaksanaan pembelajaran sebesar 95,4% dengan kategori berhasil. Berdasarkan hasil analisis data, alat peraga indeks bias berbantuan *logger pro* dapat digunakan sebagai media pembelajaran fisika yang valid, praktis, dan efektif dalam proses pembelajaran.

Kata kunci: Alat peraga, indeks bias, *logger pro*

ABSTRACT

Hana Daforosa R. Siagian. Development of Refractive Index Props Aided by Logger Pro at Senior High School

Utilization of technological sophistication during the learning process is very important in analyzing the abstract refractive index phenomenon. The development of software technology is growing rapidly, making learning media in the form of practical tools also developing, namely software that helps in physics experiments. Logger Pro is software that is used as a medium for physics experiments. This study aims to develop a valid, practical, and effective refractive index props aided by a logger pro as a physics learning media. The research method applied is Research and Development, using the Analyze Design Develop Implement Evaluate (ADDIE) stage. The research design is a pre-experimental design with the type of one-shot case study. The research was carried out at SMAN 11 Medan in the 2021/2022 academic year. The results of the validity of props are based on media experts with a percentage value of 92.3% with a very valid category. The results of the practicality of props based on students' responses to props obtained a percentage value of 95.6% with a very practical category. The results of the effectiveness of props based on the results of classical learning completeness of 89.2% of students completed and the results of learning implementation of 95.4% in the successful category. Based on the results of data analysis, the refractive index props aided by logger pro can be used as a valid, practical, and effective physics learning media in the learning process.

Keywords: Props, refractive index, logger pro

