

ABSTRAK

PENGEMBANGAN MEDIA PEMBELAJARAN *AUGMENTED REALITY* BERBASIS PENDEKATAN SAINTIFIK UNTUK MENINGKATKAN KEMAMPUAN PEMECAHAN MASALAH

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Penelitian ini merupakan penelitian pengembangan (*research and development*) yang bertujuan untuk mengembangkan media pembelajaran berbasis *augmented reality* dengan pendekatan saintifik yang valid, praktis, dan efektif untuk meningkatkan kemampuan pemecahan masalah matematis peserta didik. Desain penelitian mengacu pada model Plomp (*Preliminary Research, Prototyping Phase, Assessment Phase*). Penelitian dilakukan di SMP YBL Natar, Kecamatan Natar, pada kelas VIII semester genap tahun ajaran 2024/2025. Teknik pengumpulan data meliputi wawancara, angket/kuesioner, dan tes kemampuan pemecahan masalah. Teknik analisis data yang digunakan adalah statistik deskriptif dan *uji-t*. Hasil analisis data menunjukkan bahwa media pembelajaran *augmented reality* yang dikembangkan memenuhi kriteria valid dan praktis. Hasil *Uji-t* terhadap peningkatan (*N-gain*) kemampuan pemecahan masalah matematis siswa diperoleh $0,001 < 0,05$, sehingga media pembelajaran *augmented reality* efektif meningkatkan kemampuan pemecahan masalah matematis siswa. Jadi, dapat disimpulkan bahwa media pembelajaran *augmented reality* berbasis pendekatan saintifik memenuhi kriteria valid, praktis, serta efektif untuk meningkatkan kemampuan pemecahan masalah matematis siswa.

Kata kunci: Media Pembelajaran, *augmented reality*, kemampuan pemecahan masalah

ABSTRACT

DEVELOPMENT OF AUGMENTED REALITY LEARNING MEDIA BASED ON A SCIENTIFIC APPROACH TO ENHANCE PROBLEM-SOLVING SKILLS

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This research is a development study (research and development) aimed at developing an augmented reality-based learning media with a scientific approach that is valid, practical, and effective to enhance students' mathematical problem-solving abilities. The research design follows the Plomp model (Preliminary Research, Prototyping Phase, Assessment Phase). The study was conducted at SMP YBL Natar, Natar District, involving eighth-grade students in the even semester of the 2024/2025 academic year. Data collection techniques included interviews, questionnaires, and mathematical problem-solving tests. The data analysis techniques employed were descriptive statistics and t-tests.

The results of the data analysis indicate that the developed augmented reality learning media meets the criteria of being valid and practical. The t-test results on the improvement (N-gain) of students' mathematical problem-solving abilities yielded a value of $0.001 < 0.05$, indicating that the augmented reality learning media effectively enhances students' mathematical problem-solving skills. Therefore, it can be concluded that the augmented reality-based learning media with a scientific approach meets the criteria of being valid, practical, and effective in improving students' mathematical problem-solving abilities.

Keywords: Learning Media, Augmented Reality, Problem-Solving Skills