

ABSTRAK

Elik Mahayani, Komang (2023), Pengembangan *Virtual Reality* Berbasis *Case Based Learning* Pada Mata Pelajaran Matematika Kelas VIII, Tesis, Teknologi Pendidikan, Program Pascasarjana, Universitas Pendidikan Ganesha

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Kata-kata kunci : *Virtual Reality, Case Based Learning, Matematika*

Kurangnya media pembelajaran dan kreatifitas guru dalam melaksanakan pembelajaran matematika di kelas VIII SMP Negeri 1 Negara mengakibatkan kurangnya pemahaman dan antusiasme siswa dalam belajar matematika. Penelitian ini bertujuan untuk mendeskripsikan rancang bangun, kelayakan media, efektifitas, dan respon guru serta siswa pada penerapan *virtual reality* berbasis *case based learning* pada mata pelajaran matematika di kelas VIII. Penelitian pengembangan ini menggunakan model pengembangan *Dick and Carey*. Subjek penelitian ini adalah dua orang ahli isi, satu orang ahli desain pembelajaran, satu orang ahli media pembelajaran, tiga orang siswa uji coba perorangan, sembilan orang siswa uji coba kelompok kecil, dan tiga puluh dua orang siswa uji coba lapangan. Metode pengumpulan data yang digunakan yakni wawancara, kuesioner, tes, dan dokumentasi. Teknik analisis data menggunakan teknik analisis deskriptif kuantitatif, analisis statistika inferensial Uji-t, dan uji N-Gain. Berdasarkan hasil uji kelayakan media, dapat disimpulkan bahwa *virtual reality* layak digunakan dalam kegiatan pembelajaran. Selanjutnya berdasarkan uji efektifitas, disimpulkan bahwa penggunaan *virtual reality* berbasis *case based learning* efektif untuk meningkatkan hasil belajar siswa dalam mata pelajaran matematika kelas VIII.

ABSTRACT

Elik Mahayani, Komang (2023), *Development of Virtual Reality Based Case-Based Learning in Mathematics Subject for Eighth Grade*. Thesis, Educational Technology, Postgraduate Program, Ganesha University of Education.

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Keywords : Virtual Reality, Case Based Learning, Mathematics

The lack of instructional media and teacher creativity in implementing mathematics education in Class VIII of SMP Negeri 1 Negara has resulted in a lack of understanding and enthusiasm among students in learning mathematics. This research aims to describe the design, feasibility, effectiveness, and the response of teachers and students to the implementation of virtual reality based on case-based learning in mathematics subjects in Class VIII. This development research uses the Dick and Carey development model. The subjects of this study are two content experts, one instructional design expert, one instructional media expert, three individual trial students, nine small group trial students, and thirty-two field trial students. The data collection methods used are interviews, questionnaires, tests, and documentation. The data analysis techniques used are quantitative descriptive analysis, inferential statistical analysis using t-tests, and N-Gain tests. Based on the results of the media feasibility test, it can be concluded that virtual reality is suitable for use in learning activities. Furthermore, based on the effectiveness test, it is concluded that the use of virtual reality based on case-based learning is effective in improving student learning outcomes in Class VIII mathematics.