ABSTRAK

Hartono, Romi (2025), Pengembangan Media Pembelajaran Augmented Reality (AR) Berbasis Model Project-Based Learning Untuk Meningkatkan Motivasi Dan Hasil Belajar Gambar Proyeksi. Tesis, Teknologi Pendidikan, Program Pascasarjana, Universitas Pendidikan Ganesha, Singaraja 2025.

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Rendahnya pemahaman spasial mahasiswa serta terbatasnya media visual dinamis yang dapat memfasilitasi representasi objek tiga dimensi dalam pembelajaran gambar proyeksi menjadi masalah yang sangat strategis. Salah satu cara mengatasinya adalah pengembangan media *augmented reality* (AR) menggunakan model 4D (*Define, Design, Develop, dan Disseminate*). Tujuannya adalah untuk meningkatkan motivasi dan hasil belajar mahasiswa dalam pembelajaran gambar proyeksi. Penelitian dilaksanakan pada Program Studi Pendidikan Seni Rupa Universitas Pendidikan Ganesha. Subjek penelitian meliputi 22 mahasiswa. Data diperoleh melalui wawancara, observasi, angket, tes, dan dokumentasi. Instrumen penelitian meliputi lembar validasi ahli, angket motivasi, dan tes hasil belajar, yang telah divalidasi oleh pakar materi, media, dan desain pembelajaran. Teknik analisis data meliputi analisis deskriptif, uji normalitas, uji Wilcoxon, uji-t berpasangan, serta analisis N-gain untuk mengukur efektivitas peningkatan hasil belajar. Hasil penelitian menunjukkan bahwa media pembelajaran AR sangat layak berdasarkan validasi ahli isi dengan persentase sebesar 91%, serta kategori layak berdasarkan validasi ahli media dengan persentase sebesar 88%. Uji coba perorangan, kelompok kecil, dan uji lapangan juga menunjukkan persepsi positif dari mahasiswa dengan persentase penerimaan antara 81–91%. Media AR terbukti efektif meningkatkan hasil belajar mahasiswa dengan nilai rata-rata pretest sebesar 41,00 meningkat menjadi 72,41 pada posttest, dengan nilai N-gain sebesar 0,52 (kategori sedang). Motivasi belajar mahasiswa juga meningkat signifikan berdasarkan uji Wilcoxon ($p = 0,000$) dan uji-t berpasangan ($p = 0,000$). Media AR sebagai produk pengembangan dalam penelitian ini layak dan efektif digunakan dalam pembelajaran gambar proyeksi.

Kata kunci: Augmented Reality, gambar proyeksi, hasil belajar, motivasi belajar, pengembangan media

ABSTRACT

Hartono, Romi (2025), Development of Augmented Reality (AR) Learning Media with the Project-Based Learning Model to Improve Motivation and Learning Outcomes in Projection Drawing. Thesis, Educational Technology, Postgraduate Program, Ganesha University of Education, Singaraja.

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The low level of students' spatial understanding and the limited availability of dynamic visual media capable of facilitating three-dimensional object representation in projection drawing learning constitute a highly strategic problem. One approach to addressing this issue is the development of augmented reality (AR) learning media using the 4D model (Define, Design, Develop, and Disseminate). This study aims to improve students' learning motivation and learning outcomes in projection drawing instruction. The research was conducted in the Visual Arts Education Study Program at Universitas Pendidikan Ganesha. The research subjects consisted of 22 students. Data were collected through interviews, observations, questionnaires, tests, and documentation. The research instruments included expert validation sheets, motivation questionnaires, and learning outcome tests, which were validated by content experts, media experts, and instructional design experts. Data analysis techniques included descriptive analysis, normality testing, Wilcoxon tests, paired-sample t-tests, and N-gain analysis to measure the effectiveness of learning outcome improvement.

The results indicate that the AR learning media is highly feasible based on content expert validation, with a percentage score of 91%, and feasible based on media expert validation, with a percentage score of 88%. Individual trials, small-group trials, and field trials also revealed positive student perceptions, with acceptance percentages ranging from 81% to 91%. The AR media proved effective in improving students' learning outcomes, as evidenced by an increase in the mean pretest score from 41.00 to 72.41 on the posttest, with an N-gain value of 0.52 (moderate category). Students' learning motivation also showed a significant increase based on the Wilcoxon test (p = 0.000) and the paired-sample t-test (p = 0.000). Therefore, the AR media developed in this study is feasible and effective for use in projection drawing learning.

Keywords: *Augmented Reality, learning motivation, learning outcomes, media development, projection drawing*