

**PENGEMBANGAN *IMMERSIVE LABORATORY* BERBASIS *VIRTUAL REALITY* PADA STANDAR PEMERIKSAAN KEHAMILAN DI
PROGRAM STUDI KEBIDANAN**

Oleh

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ABSTRAK

Perkembangan Teknologi Informasi dan Komunikasi pada era *society 5.0* mendorong pemanfaatan teknologi edukatif yang mampu meningkatkan kualitas pembelajaran, termasuk dalam pendidikan kebidanan. *Virtual Reality* (VR) menjadi solusi potensial untuk menjembatani kesenjangan antara penguasaan teori dan keterampilan praktik pemeriksaan kehamilan mahasiswa Program Studi Kebidanan, terutama di tengah keterbatasan alat peraga dan rendahnya kesempatan latihan mandiri mahasiswa. Penelitian ini bertujuan untuk mengetahui perancangan, implementasi dan menganalisis pengalaman dan respons pengguna dalam pengembangan aplikasi *Immersive Laboratory* berbasis VR pada standar pemeriksaan kehamilan di Program Studi Kebidanan, Fakultas Kedokteran, Universitas Pendidikan Ganesha. Metode penelitian yang digunakan yaitu *Research and Development* (R&D) dengan model *Multimedia Development Life Cycle* (MDLC) yang terdiri dari tahap *concept, design, material collecting, assembly, testing, dan distribution*. Hasil penelitian aplikasi VR telah melalui uji *blackbox* yang mencapai 100% fungsional. Uji validitas produk oleh ahli isi dan ahli media yang dilakukan secara iteratif (MDLC) menghasilkan persentase kesepakatan Gregory sebesar 1,00 dengan kriteria “Sangat Valid”. Evaluasi pengalaman pengguna dilakukan menggunakan *User Experience Questionnaire* (UEQ) kepada 26 responden. Hasil menunjukkan kategori “*Excellent*” pada seluruh aspek, dengan skor tertinggi pada Stimulasi dan Kebaruan. Temuan ini mengindikasikan bahwa aplikasi VR sangat efektif dalam menciptakan lingkungan praktik yang *immersive* dan mandiri, sehingga berhasil menjembatani kesenjangan antara penguasaan teori dan keterampilan praktik pemeriksaan kehamilan mahasiswa.

Kata Kunci: *Virtual Reality, Immersive Laboratory, Pemeriksaan Kehamilan, Pendidikan Kebidanan, User Experience Questionnaire (UEQ).*

**DEVELOPMENT OF A VIRTUAL REALITY-BASED IMMERSIVE
LABORATORY FOR PREGNANCY EXAMINATION STANDARDS IN
MIDWIFERY STUDY PROGRAMMES**

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ABSTRACT

The development of Information and Communication Technology in the era of Society 5.0 has driven the adoption of educational technologies capable of enhancing learning quality, including in midwifery education. Virtual Reality (VR) offers a potential solution to bridge the gap between theoretical knowledge and practical skills in pregnancy examinations among midwifery students, particularly given the limitations of training models and insufficient opportunities for independent practice. This study aims to analyze the design, implementation, and user experience and response in the development of a VR-based immersive laboratory application for standard pregnancy examinations at the Midwifery Study Program, Faculty of Medicine, Universitas Pendidikan Ganesha. The research employed a Research and Development (R&D) approach using the Multimedia Development Life Cycle (MDLC) model, which consists of the stages of concept, design, material collecting, assembly, testing, and distribution. The development results show that the VR application successfully passed black-box testing with 100% functionality. Product validity testing by content and media experts, which was conducted iteratively (MDLC), yielded a Gregory agreement percentage of 1.00, categorized as “Highly Valid.” User experience evaluation was conducted using the User Experience Questionnaire (UEQ) involving 26 respondents. The results indicated an “Excellent” rating across all aspects, with the highest scores recorded in the Stimulation and Novelty dimensions. This finding indicates that the VR application is highly effective in creating an immersive and independent practice environment, thereby successfully bridging the gap between students' theoretical knowledge and practical skills in pregnancy examinations.

Keywords: *Virtual Reality, Immersive Laboratory, Antenatal Examination, Midwifery Education, User Experience Questionnaire (UEQ).*