RANCANG BANGUN *MOBILE LEARNING* BERBASIS *AUGMENTED REALITY* UNTUK MENDUKUNG PEMBELAJARAN PERAKITAN KOMPUTER DI SMK

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ABSTRAK

Penelitian ini bertujuan untuk mengembangkan *mobile learning* berbasis *augmented reality* untuk mendukung pembelajaran perakitan komputer di SMK. Dilatarbelakangi oleh permasalahan terbatasnya alat pendukung perakitan komputer dan kurangnya motivasi siswa dalam pembelajaran perakitan komputer sehingga pembelajaran tidak berjalan secara optimal. Oleh karena itu peneliti membangun *mobile learning* berbasis *augmented reality* untuk mendukung pembelajaran perakitan komputer di SMK. Penelitian ini menggunakan metode Siklus Hidup Menyeluruh (SHM) dengan tahap-tahap penelitian meliputi (1) analisis, (2) desain, (3) pengembangan, (4) implementasi, dan (5) penilaian. Dari penelitian ini didapatkan hasil : 1) *Mobile learning* berbasis *augmented reality* telah dikembangkan menggunakan *software* Unity 3D 2018.1 melalui beberapa tahap yaitu analisis, desain, pengembangan, implementasi, dan penilaian, serta dinilai baik oleh ahli media dan ahli materi dengan rata-rata persentase kelayakan sebesar 83.25%, 2) respon siswa terhadap *mobile learning* berbasis *augmented reality* didapatkan persentase penilaian keseluruhan 95.6% dengan kriteria sangat baik, 3) *mobile learning* berbasis *augmented reality* dapat mendukung pembelajaran perakitan komputer dalam memberikan pemahaman perakitan komputer, 4) *mobile learning* berbasis *augmented reality* dapat mendukung pembelajaran perakitan komputer dalam ranah psikomotorik.

Kata Kunci : Perakitan Komputer, *Mobile Learning*, *Augmented Reality.*

DESIGN MOBILE LEARNING BASED AUGMENTED REALITY TO SUPPORT LEARNING OF COMPUTER ASSEMBLIES IN VOCATIONAL SCHOOL

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ABSTRACT

The purpose of this research is for developing mobile learning based augmented reality to support on computer assembling learning in vocational high school. Backrgounded by limited supporting tools in computer assembling and lack of motivation of student on computer assembling so learning does not work optimally. Therefore, researcher made this augmented reality to support computer assembling learning in vocational high school. This research is using thorough life cycle method (SHM) with aspect (1)analyze (2) design (3)developing (4) implementation (5) assessment. The result from this research : 1) mobile learning based augmented reality has been developed using unity 3d 2018.1 through several stages, that is analysis, design, developing, implementation, and assessment, and assessed by media experts and material experts with an average feasibility percentage of 83.25%, 2) the learners responses to this mobile learning based augmented reality obtained a percentage of overall assessment of 95.6% with very good criteria, 3) mobile learning based augmented reality can support computer assembly learning in providing understanding of computer assembly, 4) mobile learning based augmented reality can support the learning of computer assembly in the psychomotor domain.

Keywords: *Computer Assembly, Mobile Learning, Augmented Reality.*