

**Pengembangan *Mobile Augmented Reality* Alat Berat Konstruksi
untuk Pembelajaran di SMK**

TESIS

Diajukan untuk Memenuhi Sebagian dari Syarat untuk Mendapatkan Gelar
Magister Pendidikan Teknologi dan Kejuruan



Oleh:

**Bahrul Afandi
NIM 1706455**

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Oleh

Bahrul Afandi

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LEMBAR PENGESAHAN

Judul Tesis

**PENGEMBANGAN *MOBILE AUGMENTED REALITY* ALAT
BERAT KONSTRUKSI UNTUK PEMBELAJARAN DI SMK**

Oleh:

BAHRUL AFANDI

NIM. 1706455

DISETUJUI DAN DISAHKAN OLEH:

PEMBIMBING I

Iwan Kustiawan, S.Pd.,M.T.,Ph.D.

NIP. 197709082003121002

PEMBIMBING II

Dr. H. Nanang Dalil Herman,S.T.,M.Pd.

NIP.196202021988031002

Mengetahui,

Ketua Prodi Pendidikan Teknologi dan Kejuruan

Sekolah Pascasarjana

Universitas Pendidikan Indonesia

Dr. Ade Gafar Abdullah. S.Pd.,M. Si

NIP. 19721113 199903 1 001

ABSTRAK

Penelitian bertujuan untuk mengembangkan media pembelajaran berbasis *mobile augmented reality* bernama *Mobile ARChE* pada kompetensi dasar memahami jenis-jenis alat berat konstruksi. Metode penelitian menggunakan *One Group Pretest-Posttest Design* dan *ADDIE (Analysis, Design, Development, Implementation, and Evaluation)*. Penelitian dilaksanakan pada semester genap tahun 2018/2019 menggunakan 100 siswa SMKN 3 Jombang sebagai responden. Instrumen penelitian menggunakan kuesioner dan *pretest-posttest. Usability test* sistem memperoleh skor rata-rata 3,79 yang artinya sudah baik. Selanjutnya, terdapat peningkatan hasil belajar dengan rata-rata skor 0,564 pada kategori sedang. Skor rata-rata responden adalah 3,94 yang menunjukkan bahwa siswa puas dengan media tersebut.

Kata Kunci: Pengembangan, *Augmented Reality*, Alat Berat Konstruksi, Hasil Belajar

ABSTRACT

This research aims to develop mobile augmented reality based learning media, namely Mobile ARChE on basic competencies in understanding the types of construction heavy equipment. The research method used the One Group Pretest Posttest Design and ADDIE (Analysis, Design, Development, Implementation, and Evaluation). The research took place in the even semester of 2018/2019 using 100 students of SMKN 3 Jombang as respondents. The research instrument used a questionnaire and pretest-posttest. Usability test of the system showed an average score of 3.79, which means good category. Then, there are the improvement of learning outcome with the score 0,564, which mean medium category. The average score of respondent is 3.94 indicating that student satisfied with our media.

Keywords: *Development, Augmented Reality, Construction Heavy Equipment, Learning Outcomes*

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