

ABSTRAK

Marwatun Nazla: Pengembangan Media Pembelajaran Berbasis Android Menggunakan Mit App Inventor Pada Mata Pelajaran Penginderaan Jauh Kelas XI Program Keahlian Teknik Geomatika Di SMK Negeri 1 Percut Sei Tuan. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2021.

Tujuan penelitian ini adalah untuk: (1) Mengembangkan media pembelajaran berbasis Android berbantu aplikasi sumber terbuka *Mit App Inventor* sebagai media pembelajaran penginderaan jauh untuk siswa kelas XI kompetensi keahlian Teknik Geomatika di SMK Negeri 1 Percut Sei Tuan (2) Mengetahui tingkat kelayakan media pembelajaran berbasis android berbantu aplikasi sumber terbuka *Mit App Inventor* sebagai media pembelajaran, dan (3) Mengetahui respon peserta didik dan guru setelah menggunakan aplikasi pembelajaran berbasis android sebagai media pembelajaran. Media pembelajaran berbasis android dikembangkan dengan menggunakan beberapa *software* dan *website open source*, yaitu *Mit App Inventor*, *Kodular*, *Airtable*, *Brand Maker*, dan *Photoshop CS5*. Penelitian ini merupakan penelitian pengembangan (*Research and Development*). Model pengembangan yang digunakan adalah model pengembangan 4P yang terdiri atas: (1) pendefinisian, (2) perancangan, (3) pengembangan, dan (4) penyebarluasan. Penelitian ini dilakukan di SMK Negeri 1 Percut Sei Tuan dengan responden penelitian guru mata pelajaran penginderaan jauh dan siswa kelas XI program keahlian Teknik Geomatika (TGM). Teknik pengumpulan data yaitu wawancara, observasi, dan penyebaran angket. Instrumen yang digunakan adalah lembar pedoman wawancara, angket validasi ahli, angket analisis kebutuhan, dan angket respon guru dan peserta didik,. Teknik analisis data dilakukan dengan hitungan statistik deskriptif. Adapun hasil penelitian adalah: (1) produk media pembelajaran berbasis android pada mata pelajaran Penginderaan Jauh pada kompetensi dasar menerapkan penggunaan peralatan pengumpulan data pada permukaan bumi (*ground truth*), (2) kelayakan produk berdasarkan validasi ahli media diperoleh rerata skor sebesar 4,47 termasuk dalam kriteria “**sangat layak**“. Sedangkan berdasarkan validasi ahli materi diperoleh rerata skor sebesar 4,74 termasuk dalam “**sangat layak**“. Penilaian guru mendapatkan skor rerata sebesar 4,51 (90,66%) termasuk dalam interpretasi “**sangat layak**” atau “sangat baik” Penilaian peserta didik mendapatkan rerata skor sebesar 137,5 dengan persentase 85,71% termasuk dalam interpretasi “**sangat baik**” atau “**sangat baik**”. Dengan demikian media pembelajaran berbasis android yang dikembangkan sangat layak digunakan sebagai media pembelajaran

Kata Kunci: Android, Media Pembelajaran, Penelitian Pengembangan

ABSTRACT

Marwatun Nazla: *The Development of Android-Based Learning Media on the subject of Remote-Sensing for 11th grade students Department of Geomatics Engineering at SMK Negeri 1 Percut Sei Tuan.* Thesis. Faculty of Engineering, State University of Medan. 2021.

This research aims to: (1) Develop an android-based learning media using Mit App Inventor on the subject of remote sensing for 11th grade students Department of Geomatics Engineering (TGM) at SMK 1 Sei Tuan (2) Knowing the feasibility of the android-based learning media as a learning media, and (3) Knowing the responses of teachers and students after using android-based learning media as a learning materials. This android-based learning media was developed by using several software and websites, such as: Mit App Inventor, Kodular, Airtable, Brand Maker, and Photoshop CS5. This type of research is Research and Development. The development model used is the 4P development model consisting of: (1) defining, (2) designing, (3) development, and (4) dissemination. The research was conducted at SMK Negeri 1 Percut Sei Tuan, which tested by remote-sensing teachers and also the 11th grade students. Data were obtained through interview, observation, and questionnaires. The instruments used was the interview guideline sheets, expert-validation questionnaires, needs- analysis questionnaires, and the opinion-questionnaires for teachers and students. The data analysis techniques was carried out by calculating descriptive statistic. The results of this research are: (1) the product of android-based learning media for remote-sensing subjects on basic competences implementing the use of data collection equipment on the surface of the earth (ground truth), (2) the quality of the android-based learning media is “**very feasible**” based on media expert assestment that got an average-score of 4,74, while from material expert got 4.74. The assessment of the teacher's response got an average-score of 4.51 (90.66%) interpreted as “**very good**” or “**very feasible**”. The response of the students got a “**very good**” or “**very feasible**” interpretations which average scored of 137.5 with a percentage of 85.71%. That it means that the android-based learning media is very appropriate to use as a learning media.

Keywords: Android, Learning Media, Development Research