

ABSTRACT

Nila Virgo Lestari. 2020. Development of Edupark Physics E-book for Class X Senior High School with an Integrated Scientific Approach to The Bukik Chinangkiek Tourism Park. Thesis. Master of Physics Education Study Program, Faculty of Mathematics and Natural Sciences, Universitas Negeri Padang.

Alam takambang jadi guru is a Minangkabau philosophy that suggests to us that everything in nature can be used as a learning resource. Bukik Chinangkiek has many physics concepts, but they have not been utilized properly in the learning process. The 2013 curriculum requires the use of technology in learning that has not been implemented properly. Lack of integration of learning materials with regional potential and the use of technology, causing students to still find it difficult to understand physics. Therefore, this research aims to produce an edupark physics e-book with an integrated scientific approach to the Bukik Chinangkiek tourism park which is valid, practical and effective.

This type of research was design research with the Plomp development model, which consists of preliminary research, the prototyping phase and the assessment phase. The data in this study were preliminary analysis, validation, practicality and effectiveness. The research instrument consisted of questionnaires, validation sheet, practicality sheet, self-assessment, observation sheet, test questions and performance appraisal sheets. Need data analysis, practicality and effectiveness on the competence of attitudes and skills were analyzed using descriptive statistics. In the knowledge competency, the formula was used N-Gain. Meanwhile, for the validation data, the Aiken's V formula was used.

The research result in preliminary research was the need to develop an edupark physics e-book with an integrated scientific approach to the Bukik Chinangkiek tourism park. At the prototyping phase, the edupark physics e-book was categorized as valid and very practical. The results of assessment phase, the edupark physics e-book was in the effective category. Based on the research results, it can be concluded that the edupark physics e-book for class X senior high school with an integrated scientific approach to the Bukik Chinangkiek tourism park has met the criteria of validity, practicality and effectiveness.

Keywords : E-book, Edupark, Scientific Approach, Bukik Chinangkiek

ABSTRAK

Nila Virgo Lestari. 2020. Pengembangan *E-book Edupark* Fisika SMA Kelas X dengan Pendekatan Sainifik Terintegrasi Potensi Daerah Taman Wisata Bukik Chinangkiek. Tesis. Program Studi Magister Pendidikan Fisika Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Negeri Padang.

Alam takambang jadi guru merupakan falsafah Minangkabau yang mengisyaratkan pada kita bahwa semua yang ada di alam dapat dijadikan sebagai sumber belajar. Bukik Chinangkiek memiliki banyak konsep-konsep fisika, namun belum termanfaatkan dengan baik dalam proses pembelajaran. Kurikulum 2013 menuntut pemanfaatan teknologi dalam pembelajaran juga belum terlaksana dengan baik. Kurangnya pengintegrasian materi pembelajaran dengan potensi daerah dan pemanfaatan teknologi, menyebabkan peserta didik masih sulit memahami fisika. Oleh karena itu, penelitian ini bertujuan untuk menghasilkan *e-book edupark* fisika dengan pendekatan saintifik terintegrasi taman wisata Bukik Chinangkiek yang valid, praktis dan efektif.

Jenis penelitian ini adalah *design research* dengan model pengembangan Plomp, yang terdiri dari tahap *preliminary research* (analisis pendahuluan), *prototyping phase* (tahap pengembangan) dan *assessment phase* (tahap penilaian). Data dalam penelitian ini adalah data analisis pendahuluan, validasi, praktikalitas dan efektifitas. Instrumen penelitian ini terdiri dari angket, lembar validasi, lembar praktikalitas, penilaian diri, lembar observasi, soal tes dan lembar penilaian kinerja. Data analisis kebutuhan, praktikalitas dan efektifitas pada kompetensi sikap dan keterampilan dianalisis dengan statistik deskriptif. Pada kompetensi pengetahuan digunakan formula *N-Gain*. Sementara untuk data validasi digunakan rumus Aiken's V.

Hasil penelitian pada tahap *preliminary research* yaitu perlunya pengembangan *e-book edupark* fisika dengan pendekatan saintifik terintegrasi taman wisata Bukik Chinangkiek. Pada tahap *prototyping phase* yaitu *e-book edupark* fisika berkategori valid dan sangat praktis. Hasil tahap *assessment phase*, *e-book edupark* fisika berada dalam kategori efektif. Berdasarkan hasil penelitian dapat disimpulkan bahwa *e-book edupark* fisika SMA kelas X dengan pendekatan saintifik terintegrasi taman wisata Bukik Chinangkiek memenuhi kriteria valid, praktis dan efektif.

Kata Kunci : *E-book, Edupark*, Pendekatan Sainifik, Bukik Chinangkiek