ABSTRAK

ISKANDAR FAHMI. Pengembangan Sistem Aplikasi Ujian Berbasis Komputer Pada Aspek Pengetahuan Mata Pelajaran PJOK Kurikulum 2013 Siswa Kelas X dan XI SMA Swasta Sinar Husni Helvetia. Tesis, Medan: Program Pascasarjana Universitas Negeri Medan, September 2020.

Tujuan dari penelitian ini adalah mengembangkan aplikasi ujian berbasis komputer dapat membantu kinerja guru. Manfaat penelitian ini adalah sebagai fasilitas dalam membantu meringankan beban guru pada proses pelaksanaan ujian serta membantu pelaporan yang diarsipkan, bagi sekolah tersedianya aplikasi ini sesuai dengan permasalahan yang di hadapi guru dan peserta didik. Penelitian dilaksankan di SMA Swasta Sinar Husni Helvetia dengan menggunakan metode penelitian *Research and Development* yaitu mengembangkan dan menghasilkan sebuah produk. Subjek uji coba produk yaitu pada uji coba awal sebanyak 1 guru PJOK dan 30 siswa-siswi kelas X, XI dan uji coba utama sebanyak 4 guru dan 128 siswa-siswi kelas X, XI SMA Swasta Sinar Husni. Indikator penilaian adalah *correctness* yaitu kelengkapan, *reliability* yaitu akurasi, dan toleransi kesalahan, *integrity* yaitu instrumentasi dan keamanan, *usability* yaitu kemudahan operasional. Hasil penelitian menunjukkan bahwa ujian berbasis kertas dapat dikembangkan menjadi aplikasi ujian berbasis komputer yang memudahkan kerja guru. Hasil validasi ahli materi pembelajaran diperoleh persentase 92,30% dan hasil validasi ahli media (IT) diperoleh persentase 92,69% dengan kriteria "sangat layak" dan dapat "digunakan". Kemudian uji coba lapangan utama guru diperoleh persentase 93,89% dan siswa diperoleh persentase 94,06% dengan kriteria "sangat layak". Produk yang telah di validasi dan dinyatakan sangat layak diproduksi kemudian di uji coba *pre-tes* dan *post-tes*, dari uji coba *pre-tes* dan *post-tes* diperoleh peningkatan nilai siswa yang menggunakan aplikasi sebesar 23,87% dengan kategori "sangat tinggi" artinya aplikasi tersebut memiliki efektivitas tinggi terhadap pelaksanaan ujian. Kesimpulan penelitian adalah penilaian kualitas produk "sistem aplikasi ujian berbasis komputer" dengan kriteria "sangat layak" untuk digunakan.

Kata Kunci : Sistem Aplikasi, Ujian Berbasis Komputer, Aspek Pengetahuan, Mata Pelajaran PJOK, Kurikulum 2013

ABSTRACT

ISKANDAR FAHMI. Development of a Computer-Based Examination Application System in the Knowledge Aspect of the Subject of PJOK 2013 Curriculum for Class X and XI Students of Sinar Husni Helvetia Private High School. Thesis, Medan: Postgraduate Program, Universitas Negeri Medan, September 2020.

The purpose of this study is to develop a computer-based examination application that can help teacher performance. The benefit of this research is as a facility in helping to ease the burden on teachers in the process of implementing the exam and assisting archived reporting, for schools the availability of this application is in accordance with the problems faced by teachers and students. The research was carried out at Sinar Husni Helvetia Private High School using the Research and Development research method, namely developing and producing a product. The subjects of the product trial were 1 PJOK teacher and 30 students of class X, XI and in the main trial were 4 teachers and 128 students of class X, XI Sinar Husni Private High School. Assessment indicators are correctness, namely completeness, reliability, namely accuracy, and fault tolerance, integrity, namely instrumentation and security, usability, namely ease of operation. The results show that paper-based exams can be developed into computer-based exam applications that facilitate teacher work. The results of the validation of the learning material expert obtained a percentage of 92.30% and the results of the validation of the media expert (IT) obtained a percentage of 92.69% with the criteria "very feasible" and can be "used". Then the main field trial of the teacher obtained a percentage of 93.89% and students obtained a percentage of 94.06% with the criteria "very feasible". Products that have been validated and declared very feasible to be produced are then tested in the pre-test and post-test, from the pre-test and post-test, an increase in the score of students who use the application is obtained by 23.87% with the category "very high" meaning that the application has high effectiveness on the implementation of the exam. The conclusion of the study is the assessment of product quality "computer-based exam application system" with the criteria "very feasible" to use.

Keywords: Application Systems, Computer-Based Examinations, Knowledge Aspects, Subjects PJOK, 2013 Curriculum