

Sofan Mohammad Iqbal. 2024. *Pengembangan Game Edukasi Tekanan Sebagai Media Pembelajaran Untuk Menumbuhkan Kemampuan Numerasi Siswa Smpn 1 Kwanyar*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: Dr. Sigit Dwi Saputro, S.Pd, M.Pd.

ABSTRAK

Fisika merupakan bidang ilmu sains yang bersifat abstrak sehingga siswa kesulitan memahami materi. Kesulitan siswa meliputi pemahaman konsep, simbol, rumus, dan menghitung. Hal ini dikarenakan karakteristik pembelajaran fisika berupa kemampuan numerasi. Maka diperlukan inovasi pengembangan dalam pembelajaran. Penelitian ini bertujuan untuk mengembangkan *game* edukasi tipe *adventure side-scrolling* pada materi tekanan zat untuk menumbuhkan kemampuan numerasi siswa SMPN 1 Kwanyar. Penelitian ini menggunakan model penelitian ADDIE yang terdiri dari tahapan *Analysis, Design, Development, Implementation, Evaluation*. Penelitian ini menciptakan sebuah *game* edukasi berbasis android dengan penilaian tiga validator yaitu ahli materi 98% kriteria sangat valid, dan ahli media 92% kriteria sangat valid. Hasil penilaian respon siswa menggunakan 3 uji coba yaitu uji coba perorangan memperoleh nilai dari penyajian *game* edukasi 91%, dan nilai dari penyajian kemampuan numerasi siswa 91%. Uji coba kelompok kecil perolehan nilai dari penyajian *game* edukasi mendapatkan nilai 92%, dan nilai dari penyajian kemampuan numerasi siswa 93%. Uji coba kelompok besar perolehan nilai dari penyajian *game* edukasi mendapatkan nilai 93%, dan nilai dari penyajian kemampuan numerasi siswa 93%. Sehingga hasil tersebut *game* edukasi dinyatakan “Sangat valid” dari perolehan nilai dari validasi, dan hasil uji coba pengguna dapat disimpulkan bahwa *game* edukasi “Sangat layak” digunakan sebagai media pembelajaran.

Kata kunci : ADDIE, Game Edukasi, Numerasi, Tekanan Zat.

Sofan Mohammad Iqbal. 2024. *Development of an Educational Pressure Game as a Learning Medium to Foster Numeracy Skills for SMPN 1 Kwanyar Students*. Bachelor Thesis, Informatics Education Study Program, Faculty of Education, Trunojoyo Madura University. Supervisor: Dr. Sigit Dwi Saputro, S.Pd, M.Pd.

ABSTRACT

Physics is an abstract field of science, making it difficult for students to understand the material. Students' difficulties include understanding concepts, symbols, formulas, and calculations. This is due to the characteristic of physics learning, which involves numerical abilities. Therefore, innovation in learning development is necessary. This research aims to develop an adventure side-scrolling educational game focused on the topic of pressure in order to enhance the numerical abilities of students at SMPN 1 Kwanyar. The study employs the ADDIE research model, which consists of the stages of Analysis, Design, Development, Implementation, and Evaluation. This research created an Android-based educational game with assessments from three validators: a subject matter expert rated it 98%, indicating it is very valid, and a media expert rated it 92%, also indicating it is very valid. Student response assessments involved three trials: individual trials received a score of 91% for the presentation of the educational game and 91% for students' numerical abilities. Small group trials yielded a score of 92% for the presentation of the educational game and 93% for students' numerical abilities. Large group trials scored 93% for the presentation of the educational game and 93% for students' numerical abilities. Thus, the educational game is declared "Very Valid" based on the validation scores, and the user trials conclude that the educational game is "Very Suitable" for use as a learning media.

Keywords: ADDIE, Educational Game, Numeracy, Pressure Substance.