



Development of the Android-Based Educational Game Media "Perjalanan Si Maya" as a Formative Assessment to Improve Critical Thinking Skills and Interest in Learning Science for Elementary School Students

Devi Falamila Putri Anggraeni^{1*}, Wahono Widodo², Zainul Arifin Imam Supardi³
^{1,2,3}State University of Surabaya, Surabaya, Indonesia



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ABSTRACT

Objective: This research aims to develop an android-based educational game media, "Perjalanan Si Maya," as a formative assessment to improve critical thinking skills and interest in learning elementary school students. **Method:** This research is a type of development research (R&D). The development method used in this research is ADDIE (Analyse, Design, Development, Implementation, and Evaluation). **Results:** The results showed that the development of an android-based educational game media, "Perjalanan Si Maya," as a formative assessment was declared valid based on acquiring the very valid category. The result of practicality is classified as very good (very practical). The result of effectiveness Based on N-Gain, the mean value of the control class obtained a mean value in the "less effective" category. In contrast, the experimental class obtained a mean value in the "moderately effective" category. The results of student learning interest have increased from before learning to after learning using educational game media "Perjalanan Si Maya." **Novelty:** Teachers can carry out formative assessments through educational games to train students' critical thinking skills and interest in learning to become more qualified, effective, and efficient.

INTRODUCTION

Education is an effort made by someone to gain knowledge through learning to create a competent and competitive young generation in the future. Education is seen as an effort carried out consciously to make improvements in all fields and aspects of life, which is also known as a process of humanizing humans that takes place in society from generation to generation (Dantes, 2014). Education can improve a person's living standard (Suprianingsih & Wulandari, 2020). Education is closely related to learning activities which are part of the interaction that occurs in two directions between the teacher and students to achieve the learning objectives set (Al-Tabany, 2014). The quality of education is very influential for the development and progress of a nation (Hidayah, 2022). Because basically, education is a process that helps humans to develop themselves in order to be able to deal with various kinds of changes and problems they face (Yang & Kwok, 2017).

Life in the 21st century has ushered the world into an era of technological needs. Technology affects various aspects of life, especially education in Indonesia. Education is demanded to increase capable, skilled, and insightful human resources to deal with all the problems around them (Vidergor & Gottlieb, 2015). The challenge of education today is to produce human beings who can compete in the 21st-century world (Julianto et al., 2023). The 21st Century Partnership Learning Framework states, "In the 21st century, Indonesia must-have resources that have several competencies, one of which is

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