Development of Simulation Media Based on Geogebra Integrated E-Modules

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ABSTRACT

This research aims to describe the development of GeoGebra-based simulation media that is integrated with E-Modules as a tool in the mathematics learning process. GeoGebra is used as the main platform to produce dynamic simulations that facilitate the visual understanding of mathematical concepts. E-Modules are integrated to present structured and interactive learning content, allowing students to learn independently.

The media development methodology involves the stages of needs analysis, design, development, implementation and evaluation. The product of this research is a Geogebra-based simulation model and interactive E-Module. The feasibility of the simulation model and E-Module is based on expert reviews to provide feasible and valid results for use in mathematics learning at school.

This research makes a significant contribution to the development of mathematics learning technology, by combining the advantages of GeoGebra as a dynamic visualization tool with the flexibility and interactivity of E-Modules. The practical implication of this research is the development of more effective and enjoyable learning media, providing innovative alternatives in supporting mathematics learning in this digital era.

Kata Kunci: *Simulation, Geogebra, E-Modul*