THE EFFECTS OF COMBINING INQUIRY-BASED TEACHING WITH SCIENCE MAGIC ON THE LEARNING OUTCOMES OF A FRICTION UNIT.


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Abstract:
This research used a quasi-experimental method to explore whether integrating Science Magic (SM) into 5E Learning Cycle (5ELC) in the development of teaching materials for a friction unit would impact students' learning outcomes and attitudes toward science. A total of 68 eighth-grade students were divided into experimental and control groups. The experimental group was taught using teaching materials and methods developed using the SM-based 5ELC, while the control group adhered solely to textbook-based materials, which were also based on the 5ELC but did not involve SM activities. Two major findings were obtained in this research. First, learning effects for the experimental group were significantly higher than the control group, especially in relation to characteristics of static friction, factors that affect friction, and relationships between frictional and normal force. Second, the experimental group showed significant improvements in their attitudes toward science when juxtaposed with the control group.

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THE EFFECTS OF COMBINING INQUIRY-BASED TEACHING WITH SCIENCE MAGIC ON THE LEARNING OUTCOMES OF A FRICTION UNIT, analyzing the results of the advertising campaign, determines the plot of the radiant.

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