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ENHANCING ELEMENTARY STUDENTS' CONCEPTUAL UNDERSTANDING OF FORCE THROUGH EDU-CARD QR TOWER LEARNING MEDIA

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Abstract

This study aimed to develop a science learning media, the Edu-Card QR Tower, on the topic of force to improve conceptual understanding among fourth-grade elementary school students. The study employed a Research and Development (R&D) methodology using the ADDIE model, encompassing the stages of analysis, design, development, implementation, and evaluation. The validation process involved expert judgment, followed by a limited trial to assess the practicality and effectiveness of the media. The results showed that the Edu-Card QR Tower learning media was evaluated as highly feasible by media experts (88%) and feasible by subject-matter experts (81%). Following implementation, student responses reached 77% in the agreement category,

while the teacher response indicated full acceptance (100%). The effectiveness analysis revealed an increase in the mean score from 73.00 in the pretest to 82.67 in the posttest, with an N-Gain value of 0.45, classified as moderate. These findings demonstrate that the Edu-Card QR Tower is effective in enhancing students' conceptual understanding and scientific literacy related to the concept of force at the elementary school level.

Keywords:

Concept of Force, Science Learning Media, Edu-Card QR Tower, Elementary Education