

ABSTRACT

KIKI AULA SIFAH 2025 DEVELOPMENT OF VIROSPIN CARD LEARNING MEDIA TO IMPROVE STUDENTS' COGNITIVE LEARNING OUTCOMES IN BIOLOGY EDUCATION IN HIGH SCHOOL.

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Biology lessons on viruses in high school are often considered difficult by students due to the complex and abstract nature of the material. The lack of variety in learning media also contributes to low cognitive learning outcomes. Therefore, this study aims to develop a non-digital learning medium in the form of ViroSpin Cards for the concept of viruses in 10th grade high school and to determine the feasibility and effectiveness of its use in biology lessons. This study used the R&D (Research and Development) method with the ADDIE development model, which consists of the analysis, design, development, implementation, and evaluation stages. The subjects of this study were 10th grade high school students. The feasibility of the media was tested by media experts and subject matter experts using validation instruments. The effectiveness of the media was analyzed based on the improvement in students' cognitive learning outcomes through N-gain and effect size calculations. The results of this study indicate that the ViroSpin Card learning media obtained a very feasible category based on the assessment of media experts and subject matter experts. The results of the N-gain and effect size calculations were in the high category, indicating that the ViroSpin Card learning media is effective in facilitating the improvement of students' cognitive learning outcomes.

Keywords: *Learning Media, ViroSpin Card, Virus, ADDIE, Cognitive Learning Outcomes.*