

ABSTRACT

Vinna Ralita Damayanti, 2023. **DEVELOPMENT OF POWTOON-BASED ANIMATION VIDEO LEARNING MEDIA TO OVERCOME STUDENTS' LEARNING DIFFICULTIES IN MOMENTUM AND IMPULSE MATERIALS**

Based on the results of preliminary studies that have been conducted, physics is one of the subjects that is considered difficult by students such as recognizing physical phenomena, interpreting physical phenomena, and representing physical phenomena in mathematics. From the results of the needs analysis that has been done, students want a picture/visualization of the material taught. The solution to overcome these problems is to develop learning media in the form of videos. The purpose of this research is to produce powtoon-based animated video learning media that is categorized as valid and practical. The research method used is Research and Development (R&D) with the ADDIE development model which consists of the analysis stage, design stage, development stage, implementation stage, and evaluation stage. The test subjects in this study were one physics teacher and students of class XI MIPA 3 SMA Negeri 1 Manonjaya. The measurement of product validity level was assessed by material experts, linguists, and media experts. The average results of the validation test obtained from material experts, linguists, and media experts successively obtained a score of 0.90; 1; and 0.94 with a very valid category. The average results of the validation test obtained from material experts, linguists, and media experts successively obtained a score of 0.90; 1; and 0.94 with a very valid category. The average results of the practicality test conducted by teachers obtained a score of 96% with a very practical category and students obtained a score of 91.3% with a very practical category. Thus, Powtoon-based animated video learning media to overcome student learning difficulties in momentum and impulse material is declared valid and practical for use in learning.

Keywords: learning media, momentum and impulses, powtoon-based animated videos, student learning difficulties.