

ABSTRAK

PENGEMBANGAN ALAT PERAGA RADIASI TEMA 6 SUBTEMA 2 MATERI PERPINDAHAN KALOR SECARA RADIASI PADA SISWA KELAS V SD KANISIUS KENTENG

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2022

Penelitian ini dilatarbelakangi dengan adanya kebutuhan alat peraga IPA di SD Kanisius Kenteng tema 6 Subtema 2 materi perpindahan kalor secara radiasi. Tujuan dari penelitian ini adalah; (1) mengembangkan alat peraga radiasi pada materi perpindahan kalor secara radiasi (2) mengetahui kualitas alat peraga radiasi pada materi perpindahan kalor secara radiasi.

Penelitian ini menggunakan metode penelitian dan pengembangan (R&D). Model yang digunakan adalah model ADDIE yang melalui lima tahap pengembangan yaitu, *analyze*, *design*, *development*, *implement*, dan *evaluate*. Subjek penelitian ini adalah 19 siswa kelas V SD Kanisius Kenteng tahun ajaran 2022/2024. Objek dalam penelitian ini adalah alat peraga radiasi. Pengumpulan data dalam penelitian ini dilakukan menggunakan teknik wawancara, kuesioner, observasi, dan tes.

Hasil penelitian ini menunjukkan bahwa alat peraga radiasi berada pada kategori sangat baik dengan rata-rata hasil skor validasi sebesar 3,45. Alat peraga radiasi juga memenuhi karakteristik alat peraga yang berkualitas menurut Carol Nancarrow (2008) yaitu meliputi *Growth-Oriented*, *Transferable*, *Time-efficient*, *Results-Oriented*, *Essential*, *Feasible*, *Engaging*, dan *Functional*. Dari hasil validasi oleh dosen PGSD dan guru kelas V dapat disimpulkan bahwa alat peraga radiasi memiliki kualitas yang sangat baik dan layak digunakan dalam membantu siswa memahami materi IPA tentang perpindahan kalor secara radiasi. Hasil uji coba terbatas yang dilakukan oleh 11 siswa memperoleh nilai di atas KKM dengan nilai rata-rata 81,81. Dengan demikian, alat peraga radiasi membantu siswa dalam memahami materi perpindahan kalor secara radiasi.

Kata Kunci: Alat peraga radiasi, perpindahan kalor secara radiasi, penelitian dan pengembangan, model ADDIE.

ABSTRACT

**THE DEVELOPMENT OF RADIATION TEACHING PROPERTY THEME 6
SUB-THEME 2 THE HEAT TRANSFER BY RADIATION MATERIAL TO
THE FIFTH GRADERS OF KANISIUS KENTENG ELEMENTARY
SCHOOL**

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2022

This research is based on the necessity of science teaching props in Kanisius Kenteng Elementary School theme 6 sub-theme 2. The purposes of this study are: (1) to know the procedure of development of the radiation teaching props in the heat transfer by radiation material. (2) to know the quality of the property of the teaching props of heat transfer by radiation material.

This research used the research and development (R&D) method. The model that was used was the ADDIE model, which consists of analyze, design, development, implement, and evaluate. The subject of this research are the fifth graders of Kanisius Kenteng Elementary School, year of study 2021/2022. The object of this research is the radiation study property. The data collection was using the interview, questionnaire, observation, and test method.

The result of this research shows that (1) the development of the radiation study property using the ADDIE steps that are elaborated as analyze, design, development, implement, and evaluate; (2) the radiation study property is in the excellent category with the average validation score of 3.45. The radiation study property also fulfills the characteristics of good properties according to Carol Nancarrow (2008) that are Growth-Oriented, Transferable, Time-efficient, Results-Oriented, Essential, Feasible, Engaging, and Functional. From the Elementary Teacher's Education Lecturer and the fifth graders' teacher validation, it can be concluded that the radiation teaching property has a very good quality and proper to be used to help the students understand the science subject material about the heat transfer by radiation. The limited experiment result that 11 students did get the score of 81,81 above the minimum mastery criteria. Therefore, the radiation teaching prop proves that it helps the students in understanding the materials of heat transfer by radiation.

Keywords: radiation teaching property, heat transfer by radiation, research and development, ADDIE model.