

## ABSTRAK

### PENGEMBANGAN MEDIA *E-COMIC PHYSIC* MENGGUNAKAN TAHAPAN *PROBLEM BASED LEARNING (PBL)* UNTUK MENINGKATKAN *NATURE OF SCIENCE (NOS)* PESERTA DIDIK DI SEKOLAH DASAR

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Penelitian ini bertujuan untuk menghasilkan produk media *e-comic physic* menggunakan tahapan PBL yang layak, praktis, dan efektif meningkatkan NoS peserta didik di sekolah dasar. Jenis penelitian ini *Research and Development (R&D)*, pengembangan dilakukan mengacu pada teori Nieveen & Ploom yang disederhanakan menjadi 3 tahapan. Sampel penelitian adalah peserta didik kelas V UPT SD Negeri 3 Sumberejo. Subjek dalam penelitian sebanyak 30 peserta didik. Alat pengumpulan data menggunakan instrumen tes. Media *e-comic physic* melalui tahap uji coba validasi ahli materi, media, bahasa dan uji praktikalitas respon pendidik dan peserta didik. 1) Hasil validasi ahli materi memperoleh skor persentase sebesar 84% (sangat layak), ahli media memperoleh skor persentase sebesar 85 % (sangat valid), ahli bahasa memperoleh skor persentase sebesar 87 % (sangat valid). 2) Hasil uji kepraktisan respon pendidik dan peserta didik memperoleh rata-rata persentase sebesar 88,40% (sangat praktis). Hasil uji efektivitas sebesar  $0,000 < 0,005$  dengan menggunakan uji *independent sample t-test*, artinya terdapat perbedaan yang signifikan antara sebelum diberikan perlakuan dengan sebelum dan setelah diberikan perlakuan dengan menggunakan media *e-comic physic*. Kesimpulan penelitian, media *e-comic physic* menggunakan tahapan PBL layak, praktis dan efektif untuk meningkatkan NoS peserta didik di sekolah dasar.

**Kata Kunci:** *e-Comic Physic, Problem Based Learning, Nature of Science*

## **ABSTRACT**

### **DEVELOPMENT OF E-COMIC PHYSIC MEDIA TROUGH PROBLEM BASED LEARNING (PBL) TO IMPROVE ELEMENTARE SCHOOL STUDENT UNDERSTANDING OF THE NATURE OF SCIENCE (NOS)**

**By**

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*This study aims to develop an e-comic physic learning media based on Problem Based Learning (PBL) that is valid, practical, and effective in enhancing elementary school students' understanding of the Nature of Science (NoS). This research adopts a Research and Development (R&D) design, with the development process referring to the simplified model of Nieven & Plomp consisting of three stages. The research sample consisted of fifth-grade students at UPT SD Negeri 3 Sumberejo, with a total of 30 student participants. Data collection instruments included a test to measure learning outcomes. The e-comic physic media underwent several validation stages, including content, media, and language expert validation, as well as practicality testing from both teachers and students. The results showed: (1) Content expert validation scored 84% (very valid), media expert validation scored 85% (very valid), and language expert validation scored 87% (very valid). (2) The practicality test from teachers and students resulted in an average percentage score of 88.40% (very practical). The effectiveness test using a independent sample t-test resulted in a significance value of  $0.000 < 0.05$ , indicating a significant difference before and after the treatment using the e-comic physic media. It is concluded that the e-comic physic media based on PBL is valid, practical, and effective in improving students' understanding of the Nature of Science at the elementary level.*

**Keywords:** *e-Comic Physic, Problem Based Learning, Nature of Science*