

ABSTRAK

DANANG BUDIATMA. Pengembangan *Wireless Electricity* Sebagai Alat Peraga Frekuensi Resonansi pada Rangkaian RLC untuk Pembelajaran Fisika. Skripsi. Jakarta : Program Studi Pendidikan Fisika, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Negeri Jakarta

Penelitian ini difokuskan pada pengembang media berupa *wireless electricity sebagai* alat peraga frekuensi resonansi pada rangkaian RLC untuk pembelajaran fisika. Penelitian ini dilakukan sebagai inovasi alat peraga frekuensi resonansi yang pernah dibuat oleh peneliti sebelumnya. Penelitian pengembangan yang dilakukan untuk menambah nilai guna yang mampu membantu proses pembelajaran dalam memahami prinsip materi frekuensi resonansi pada rangkaian RLC. Penelitian ini menggunakan metode *research and development*, dengan menggunakan model ADDIE (*Analyze, Design, Develop, Implement, Evaluate*) yang direkomendasikan oleh Brog and Gall. Penelitian dilakukan dilaboratorium *research and development* FMIPA UNJ. Hasil uji kelayakan materi alat peraga frekuensi resonansi memperoleh skor 92.67%, kelayakan media memperoleh skor 82.6 %,serta uji coba lapangan terhadap guru 77.8 % dan siswa 88.8 %. Berdasarkan hasil validasi dan uji lapangan tersebut alat peraga frekuensi resonansi pada rangkaian RLC layak digunakan sebagai media pembelajaran terinterpretasikan sangat baik.

Kata Kunci : Alat Peraga ,Frekuensi Resonansi ,Rangkaian RLC, ADDIE

ABSTRACT

DANANG BUDIATMA. Development of Wireless electricity as a Tool for Viewing Resonance Frequency on RLC Circuits for Physics Learning. Encryption. Jakarta: Physics Education Study Program, Faculty of Mathematics and Natural Sciences, Jakarta State University

This research is focused on media developers in the form of wireless electricity as a means of teaching resonance frequencies in RLC circuits for physics learning. This research was carried out as a proponent of resonance frequency innovations that had been made by previous researchers. Development research carried out was carried out to add use value that was able to help the learning process in understanding the material principle of resonance frequency in RLC circuits. This research uses research and development methods, using the ADDIE model (Analyze, Design, Develop, Implement, Evaluate) recommended by Brog and Gall. The research was conducted at the laboratory of research and development, FMIPA UNJ. The results of the test equipment for the resonance frequency of the material experts obtained a score of 92.67%, the media experts obtained a score of 82.6%, as well as the external trial of the teacher at 77.8% and 88.8% for the students. Based on the results of the validation and field testing, the resonance frequency teaching aids in the RLC series are suitable to be used as very well interpreted learning media.

Keywords: Props, Frequency of Resonance, RLC Series, ADDIE