PENGEMBANGAN E-MODUL IPA BERBASIS *PROJECT BASED LEARNING* PADA MATERI TATA SURYA KELAS VII

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ABSTRAK

Penelitian ini bertujuan untuk mendeskripsikan dan menganalisis karakteristik, tingkat validitas, kepraktisan dan keterbacaan e-modul IPA berbasis *project based learning* (PjBL) pada materi tata surya kelas VII. Jenis penelitian ini adalah *research and development* (R & D) dengan menggunakan model ADDIE yang memiliki tahapan analisis (*analysis*), desain (*design*), pengembangan (*development*), implementasi (*implementation*), dan evaluasi (*evaluation*). Pada penelitian ini dibatasi sampai tahap pengembangan (*development*). Instrumen pengumpulan data yang digunakan meliputi angket wawancara, lembar validasi e-modul, lembar angket respon uji kepraktisan dan uji keterbacaan. Uji validitas e-modul IPA dilakukan oleh dua orang dosen ahli pendidikan IPA. Kepraktisan e-modul IPA diuji oleh lima orang guru IPA SMP. Keterbacaan e-modul IPA diuji oleh kelompok kecil berjumlah 15 peserta didik kelas VII SMP. Data hasil penelitian dianalisis meliputi data kualitatif dan kuantitatif. Hasil penelitian yang telah dilakukan meliputi karakteristik e-modul IPA mencakup (1) bahan ajar e-modul IPA kelas VII semester II dikemas dalam bentuk digital (elektronik), (2) disusun berdasarkan sintak PjBL secara terstruktur, (3) dilengkapi dengan media audio dan visual sehingga lebih interaktif. Hasil validitas e-modul IPA mendapatkan skor 0,96 sehingga masuk pada kualifikasi sangat valid. Hasil uji kepraktisan e-modul IPA memiliki rerata skor 4,75 termasuk dalam kualifikasi sangat praktis. Hasil uji keterbacaan e-modul IPA masuk pada kualifikasi sangat terbaca dengan skor 4,33. Berdasarkan hasil uji validitas, kepraktisan, dan keterbacaan e-modul IPA berbasis *project based learning* (PjBL) pada materi tata surya kelas VII layak untuk diuji coba lebih lanjut hingga tahap uji efektivitas.

Kata Kunci: Model ADDIE, *Project Based Learning*, Tata Surya

DEVELOPMENT OF SCIENCE E-MODULES BASED ON PROJECT BASED LEARNING ON SEVENTH GRADE SOLAR SYSTEM MATERIAL

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ABSTRACT

This research aims to describe and analyze the characteristics, level of validity, practicality and readability of project based learning (PjBL) based science e-modules on class VII solar system material. This type of research is research and development (R & D) using the ADDIE model which has stages of analysis, design, development, implementation and evaluation. This research is limited to the development stage. The data collection instruments used include interview questionnaires, e-module validation sheets, practicality test response questionnaires and readability tests. The validity test of the science e-module was carried out by two science education expert lecturers. The practicality of the science e-module was tested by five junior high school science teachers. The readability of the science e-module was tested by a small group of 15 class VII junior high school students. The research data analyzed included qualitative and quantitative data. The results of the research that has been carried out include the characteristics of science e-modules including (1) science e-module teaching materials for class VII semester II packaged in digital (electronic) form, (2) structured based on PjBL syntax, (3) equipped with audio media and visuals so it is more interactive. The validity results of the science e-module got a score of 0,96 so it was a very valid qualification. The practicality test results of the science e-module had an average score of 4,75, including very practical qualifications. The readability test results of the science e-module entered the highly readable qualification with a score of 4,33. Based on the results of validity, practicality and readability tests, the project based learning (PjBL) science e-module on class VII solar system material is suitable for further testing up to the effectiveness test stage.

Keywords: *ADDIE model, Project Based Learning, Solar System*