

PENGEMBANGAN LKS ELEKTRONIK MENGGUNAKAN GEOGEBRA BERORIENTASI *LEARNING BY DOING* PADA MATERI PYTHAGORAS UNTUK SISWA KELAS VIII SMP

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ABSTRAK

Lembar Kerja Siswa (LKS) elektronik sangat diperlukan dalam pembelajaran siswa saat ini sehingga pengembangan LKS perlu dilakukan. Penelitian ini bertujuan untuk mengembangkan LKS Elektronik yang berorientasi *Learning by Doing* menggunakan *Geogebra* untuk membelajarkan materi Pythagoras di SMP Negeri 2 Kuta. Pengembangan LKS Elektronik menggunakan model 4D (*Define, Design, Develop, Disseminate*). LKS yang dikembangkan dengan situs web untuk mempermudah penyajian media *geogebra* yang bisa dioperasikan secara langsung oleh siswa. Uji kevalidan materi menggunakan angket *Learning Object Review Instrument* (LORI) oleh ahli materi, uji kevalidan media menggunakan angket oleh ahli media, uji kepraktisan menggunakan angket respons siswa dan uji keefektifan menggunakan hasil belajar siswa. Uji coba terbatas melibatkan 15 siswa SMP kelas VIII. Skor uji kevalidan materi dan media diperoleh berturut-turut 4,82 dan 4,4 dengan kategori baik, skor angket respon siswa diperoleh 45,27 serta 80% siswa memperoleh nilai lebih dari ketuntasan minimal (75). Pengamatan langsung menunjukkan LKS elektronik direspon positif oleh siswa. Berdasarkan hasil penelitian, disimpulkan LKS elektronik memenuhi kriteria sebagai bahan ajar yang baik untuk membelajarkan materi Pythagoras.

Kata kunci: LKS elektronik, *Geogebra*, *Learning by Doing*, Pythagoras

ABSTRACT

Electronic Student Worksheets (LKS) are indispensable in student learning so that the development of LKS needs to be done. This study aims to develop an Electronic Worksheet oriented Learning by Doing using *Geogebra* to teach Pythagorean theorem at SMP Negeri 2 Kuta. Development of electronic student worksheets using a 4D model (*Define, Design, Develop, Disseminate*). LKS developed with a website to facilitate the presentation of *geogebra* that can be operated directly by students. The validity test used a *Learning Object Review Instrument* (LORI) questionnaire that was tested by material experts, and the media validity test used a questionnaire that was tested by media experts, the practicality

test used a student response questionnaire, and the effectiveness test used student learning outcomes. The preliminary field testing involved 15 grade 8th junior high school students. The results of the material and media validity test score were obtained respectively 4.82 and 4.4 with good categories, the results of the student response questionnaire scores were 45.27 and 80% of students scored more than minimum completeness (75). Direct observation showed that the electronic student worksheets were responded positively by students. Based on the results of the study, it was concluded that the electronic worksheets met the criteria as good teaching materials for teaching Pythagorean material.

Keywords: electronic Worksheets, Geogebra, Learning by Doing, Pythagoras

