

**PENGEMBANGAN E-MODUL BERBASIS *PROBLEM BASED LEARNING*
PADA MATERI PERSAMAAN GARIS LURUS UNTUK
MENINGKATKAN PEMECAHAN MASALAH MATEMATIS SISWA
KELAS VIII SMP**

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ABSTRAK

Penelitian ini dilakukan dalam upaya mengembangkan E-Modul eksploratif untuk mendukung pembelajaran berbasis masalah (PBL) pada materi persamaan garis lurus kelas VIII SMP. Pengembangan E-Modul menggunakan model ADDIE (*Analyze, Design, Development, Implementation, Evaluation*). Formatnya dikemas dalam bentuk aplikasi android yang mengandung kegiatan peserta didik dan media Geogebra. Pada proses pengembangan E-Modul eksploratif uji validitas isi/materi dilakukan dengan uji pakar, uji kevalidan dilakukan dengan angket LORI, uji efektivitas dilakukan dengan tes ketuntasan. Hasil dari uji validitas isi/materi mendapatkan rata-rata nilai sebesar 0,85 dengan kriteria sangat tinggi. Selanjutnya, uji kevalidan media mendapatka rata-rata 4,5 dengan kriteria sangat tinggi, sedangkan uji kevalidan materi mendapatkan rata-rata nilai 4,9 dengan kategori sangat tinggi. Uji coba dilakukan pada 32 pengguna dengan 30 peserta didik dan 2 orang guru di SMP Negeri 2 Sawan. Melalui uji coba didapatkan hasil angket respon guru dan peserta didik mendapatkan hasil penilaian dengan predikat sangat baik. Pada uji coba didapatkan juga bahwa E-Modul eksploratif sangat efektif dengan memperoleh rata rata skor nilai ketuntasan 77,67.

Kata Kunci: E-Modul Eksploratif, *Problem Based Learning*, Kemampuan Pemecahan Masalah.

THE DEVELOPMENT OF E-MODULES BASED ON PROBLEM-BASED LEARNING ON STRAIGHT LINE EQUATION MATERIAL TO IMPROVE MATHEMATICAL PROBLEM SOLVING OF CLASS VIII SMP STUDENTS

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ABSTRACT

This research was conducted in an effort to develop an explorative E-Module to support problem-based learning (PBL) on the material of straight line equation of class VIII junior high school. The E-Module development uses the ADDIE model (Analyze, Design, Development, Implementation, Evaluation). The format is packaged in the form of an android application that contains student activities and Geogebra media. In the process of developing an explorative E-Module, the content/material validity test was carried out with an expert test, the validity test was carried out with a LORI questionnaire, the effectiveness test was carried out with a completeness test. The results of the content/material validity test obtained an average score of 0.85 with very high criteria. Furthermore, the media validity test gets an average of 4.5 with very high criteria, while the material validity test gets an average score of 4.9 with a very high category. The trial was conducted on 32 users with 30 students and 2 teachers at SMP Negeri 2 Sawan. Through the trial, the results of the teacher and learner response questionnaire obtained the results of the assessment with a very good predicate. In the trial, it was also found that the explorative E-Module was very effective by giving an average score of 77.67 completeness scores.

Keywords: *Explorative E-Module, Problem Based Learning, Problem Solving Ability.*