

ABSTRAK

Yenny Farida Br Ginting, NIM 4162111025 (2022). Pengembangan Perangkat Pembelajaran Matematika Berbantuan *Geogebra* pada Materi Program Linier Dua Variabel.

Penelitian ini bertujuan untuk : (1) mengetahui kevalidan pembelajaran matematika berbantuan geogebra yang dikembangkan pada materi program linear; dan (2) mengetahui kepraktisan pembelajaran matematika berbantuan geogebra yang dikembangkan pada materi program linear. Model pengembangan yang digunakan dalam penelitian ini ialah model Analysis, Design, Development, Implementation dan Evaluation (ADDIE). Penelitian ini akan dilaksanakan di SMA Negeri 1 Juhar yang berlokasi di Desa Juhar, Kecamatan Juhar, Kabupaten Karo. Subjek penelitian ini adalah siswa kelas XI IPA-1 SMA Negeri 1 Juhar semester ganjil tahun ajaran 2020/2021. Sedang objek penelitian ini adalah media pembelajaran matematika berbantuan *geogebra* pada materi program linear. Hasil penelitian menunjukkan bahwa (1) Validitas perangkat pembelajaran matematika berbantuan *GeoGebra* pada materi program linier dua variabel yang dikembangkan diperoleh melalui validasi Rencana Pelaksanaan Pembelajaran (RPP) dengan rata-rata skor 4,57 dan termasuk dalam kategori valid, dan validasi Lembar Aktivitas Siswa (LAS) diperoleh dengan rata-rata skor 4.23 dan termasuk dalam kategori valid; dan (2) Kepraktisan perangkat pembelajaran matematika berbantuan *GeoGebra* pada materi program linier dua variabel diperoleh keterlaksanaan pembelajaran I diperoleh 86.67%, hasil keterlaksanaan pembelajaran II diperoleh 86.67%, hasil keterlaksanaan pembelajaran III diperoleh 80%. Maka rata-rata persentase dari keterlaksanaan pembelajaran dikelas 84.44% dengan katrgori baik. Dan hasil respon siswa terhadap LAS yang telah dikembangkan diperoleh persentase 84.85% dengan kategori sangat praktis, maka dapat disimpulkan perangkat pembelajaran yang dikembangkan praktis.

Kata Kunci : Perangkat Pembelajaran Matematika, *Geogebra*, ADDIE

ABSTRACT

Yenny Farida Br Ginting, NIM 4162111025 (2022). Development of Geogebra Assisted Mathematics Learning Devices on Two Variable Linear Program Materials.

This study aims to: (1) determine the validity of geogebra-assisted mathematics learning developed on linear programming material; and (2) knowing the practicality of geogebra-assisted mathematics learning developed on linear programming material. The floating model used in this study is the Analysis, Design, Development, Implementation and Evaluation (ADDIE) model. This research will be carried out at SMA Negeri 1 Juhar which is located in Juhar Village, Juhar District, Karo Regency. The subjects of this study were students of class XI IPA-1 SMA Negeri 1 Juhar in the odd semester of the 2020/2021 academic year. While the object of this research is learning media with geogebra-assisted mathematics on linear programming material. The results showed that (1) the validity of the GeoGebra-assisted mathematics learning tool on the two-variable linear program material developed was obtained through the validation of the Learning Implementation Plan (RPP) with an average score of 4.57 and was included in the valid category, and the validation of the Student Activity Sheet (LAS) was obtained with an average score of 4.23 and was included in the valid category; and (2) the practicality of the GeoGebra-assisted mathematics learning device on the linear two-variable program material obtained 86.67% of the implementation of learning I obtained, the results of the implementation of learning II obtained 86.67%, the results of the implementation of learning III obtained 80%. Then the average percentage of the implementation of learning in class is 84.44% with good categories. And the results of student responses to the LAS that have been developed obtained a percentage of 84.85% with a very practical category, it can be concluded that the learning tools developed are practical.

Keywords: Mathematics Learning Devices, Geogebra, ADDIE