ABSTRAK

Putri Auliany Siregar, NIM 4193311072 (2024). Pengembangan Media Pembelajaran Matematika Interaktif Melalui *Macromedia Flash* Untuk Meningkatkan Kemampuan Representasi Matematis Pada Siswa SMA Kelas XI.

Penelitian ini bertujuan untuk menghasilkan media pembelajaran matematika interatif melalui macromedia flash yang valid, praktis dan efektifan. Jenis penelitian yang digunakan adalah *research and develompment (R&D).* Model pengembangan media ini pernah dikembangkan terutama berdasarkan model pengembangan *ADDIE* (*Analysis, Design, Development, Implementation, Evaluation*). Ada pun subjek dalam penelitian ini adalah kelas XI IPA 6 SMA Negeri 11 Medan yang berjumlah 36 orang. Berdasarkan hasil uji yang dilakukan, diperoleh statistik dari validasi ahli materi dengan persentase rata-rata skor 91,96% berada pada kategori sangat valid, sedangkan hasil validasi media dengan persentase rata-rata skor 89,5% berada pada kategori sangat valid. Kepraktisan dilihat hasil persentase angket respon guru dengan persentase rata-rata 88,3% dan respon siswa dengan persentase rata-rata 75%, sehingga secara keseluruhan media pembelajaran yang dikembangkan oleh peneliti berada pada kategori sangat praktis. Keefektifan media pembelajaran matematika interaktif melalui *macromedia flash* dinyatkan efektif meningkatkan kemampuan representasi matematis siswa kelas XI IPA 6 SMA Negeri 11 Medan dengan skor *N-Gain* dengan rata-rata sebesar 74,13.

Kata Kunci: Media pembelajaran interaktif, *Macromedia Flash*, Representasi Matematis, *ADDIE*

ABSTRACT

Putri Auliany Siregar, NIM 4193311072 (2024). Development of Interactive Mathematics Learning Media Using Macromedia Flash to Improve Mathematical Representation Skills in Class XI High School Students.

This research aims to produce interactive mathematics learning media through macromedia flash that is valid, practical and effective. The type of research used is research and development (R&D). This media development model was developed primarily based on the ADDIE (Analysis, Design, Development, Implementation, Evaluation) development model. The subjects in this research were class XI Science 6 of SMA Negeri 11 Medan, totaling 36 people. Based on the results of the tests carried out, statistics were obtained from material expert validation with an average score percentage of 91.96% in the very valid category, while media validation results with an average score percentage of 89.5% were in the very valid category. Practicality is seen from the results of the percentage of teacher responses with an average percentage of 88,3% and student responses with an average percentage of 75%, so that overall the learning media developed by researchers is in the very practical category. The effectiveness of interactive mathematics learning media through Macromedia Flash was stated to be effective in improving the mathematical representation abilities of class XI IPA 6 students at SMA Negeri 11 Medan with an N-Gain score with an average of 74.13.

Keywords: Interactive learning media, Macromedia Flash, Mathematical Representation, ADDIE