

## ABSTRAK

**Santo Pangaribuan, NIM 4172111015 (2017). Pengembangan Media Pembelajaran Matematika Interaktif Melalui *Macromedia Flash* Untuk Meningkatkan Kemampuan Representasi *Matematis* Pada Siswa SMA Negeri 1 Lima Puluh.**

Penelitian ini bertujuan untuk menghasilkan media pembelajaran matematika interaktif melalui *macromedia flash* yang valid, praktis dan efektif. Jenis penelitian yang digunakan adalah *research and development* (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 2 SMA Negeri 1 Lima Puluh yang berjumlah 18 orang.

Berdasarkan hasil uji yang dilakukan, diperoleh statistik dari validasi ahli materi dengan persentase rata-rata skor 94,07% berada pada kategori sangat valid, sedangkan hasil validasi media dengan persentase rata-rata skor 94,53% berada pada kategori sangat valid. Kepraktisan dilihat hasil persentase angket respon guru dengan persentase rata-rata 92,66% dan respon siswa dengan persentase rata-rata 57,9 %, sehingga secara keseluruhan media pembelajaran yang dikembangkan oleh peneliti berada pada kategori sangat praktis. Keefektifan media pembelajaran matematika interaktif melalui *macromedia flash* dinyatakan efektif meningkatkan kemampuan representasi matematis siswa kelas XI IPA 2 SMA Negeri 1 Lima Puluh dengan skor N-Gain dengan rata-rata sebesar 62,24.

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

## ABSTRACT

**Santo Pangaribuan, NIM 4172111015 (2017). Development of Interactive Mathematics Learning Media Through Macromedia Flash to Improve Mathematical Representation Ability in SMA Negeri 1 Lima Puluh.**

This study 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 has been developed mainly based on the ADDIE development model (Analysis, Design, Development, Implementation, Evaluation). The subjects in this study were students of class XI IPA 2 SMA Negeri 1 Lima Puluh totaling 18 people.

Based on the results of the experiments carried out, statistics were obtained from material expert validation with an average percentage score of 94,07% in the very valid category, while the results of media validation with an average percentage score of 94.53% were in the very valid category. Practicality can be seen from the results of the percentage of teacher response questionnaires with an average percentage of 92.66% and student responses with an average percentage of 57.9%, so that the overall learning media developed by the researcher is in the very practical category. The effectiveness of interactive mathematics learning media through macromedia flash were declared effective in improving the mathematical representation ability of students in class XI IPA 2 SMA Negeri 1 Lima Puluh with an average N-Gain score of 62.24.

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