

## ABSTRAK

**Anisya Wahyuni Sucitra Pane, NIM 4183111046 (2024). Pengembangan Media Interaktif Berbasis Android Berbantuan *Articulate Storyline* untuk Meningkatkan Kemampuan Penalaran Matematis Siswa.**

Penelitian ini bertujuan untuk mengembangkan suatu media interaktif berbasis android berbantuan *Articulate Storyline* yang valid, praktis, dan efektif untuk meningkatkan kemampuan penalaran matematis siswa kelas XI SMA pada materi transformasi geometri menggunakan model pembelajaran *Problem Based Learning* (PBL). Pengembangan Media Interaktif ini merupakan jenis penelitian *Research and Development* (R&D) dengan model pengembangan 4-D. Adapun model pengembangan 4-D terdiri atas 4 tahap yaitu, 1) Pendefinisian (*Define*), 2) Perancangan (*Design*), 3) Pengembangan (*Development*), 4) Penyebaran (*Disseminate*). Instrumen penelitian yang digunakan pada penelitian ini adalah lembar validasi media interaktif, lembar validasi materi media interaktif, tes kemampuan penalaran matematis, angket respon guru dan angket respon siswa. Hasil validitas oleh validator media diperoleh rata – rata berjumlah 94,2% dengan kriteria sangat valid. Hasil validitas oleh validator materi diperoleh rata – rata berjumlah 93,75%. Selanjutnya media interaktif yang dikembangkan telah memenuhi kategori kepraktisan melalui hasil angket respon guru yang menunjukkan persentase sebesar 86%, dan hasil angket respon siswa menunjukkan persentase sebesar 83%. Hasil angket guru dan siswa berada dalam kategori sangat praktis; Media interaktif yang dikembangkan telah memenuhi kriteria keefektifan dengan: a) siswa yang tuntas belajar sebanyak 26 siswa dari total 30 siswa dan persentasenya sebesar 88%; b) Uji N-gain menunjukkan bahwa kemampuan penalaran matematis siswa meningkat setelah melakukan pembelajaran menggunakan media interaktif berbasis android berbantuan *Articulate Storyline* yang dikembangkan dengan peningkatan sebesar 0,71 yang termasuk dalam kategori tinggi.

**Kata Kunci : Media Inteaktif, *Articulate Storyline*, model pembelajaran PBL kemampuan penalaran matematis siswa**

## ABSTRACT

**Anisya Wahyuni Sucitra Pane, NIM 4183111046 (2024). Development of Android-Based Interactive Media Assisted by Articulate Storyline to Improve Students' Mathematical Reasoning Ability.**

This research aims to develop an Android-based interactive media assisted by Articulate Storyline that is valid, practical and effective for improving the mathematical reasoning abilities of class XI high school students on geometric transformation material using the Problem Based Learning (PBL) learning model. This Interactive Media development is a type of Research and Development (R&D) research with a 4-D development model. The 4-D development model consists of 4 stages, namely, 1) Definition, 2) Design, 3) Development, 4) Dissemination. The research instruments used in this research were interactive media validation sheets, interactive media material validation sheets, mathematical reasoning ability tests, teacher response questionnaires and student response questionnaires. The validity results obtained by media validators were an average of 94.2% with very valid criteria. The validity results obtained by the material validator were an average of 93.75%. Furthermore, the interactive media developed has fulfilled the practicality category through the results of the teacher response questionnaire showing a percentage of 86%, and the results of the student response questionnaire showing a percentage of 83%. The results of the teacher and student questionnaires were in the very practical category; The interactive media developed has met the effectiveness criteria with: a) 26 students completing their studies out of a total of 30 students and the percentage is 88%; b) The Ngain test shows that students' mathematical reasoning abilities increase after learning using Android-based interactive media assisted by Articulate Storyline which was developed with an increase of 0.71 which is included in the high category.

**Keywords: Interactive Media, Articulate Storyline, PBL learning model, students' mathematical reasoning abilities**