

ABSTRAK

Joy Gabriel Nainggolan, NIM 4173311057 (2022). Pengembangan Media Pembelajaran *E-learning* Berbasis *Realistic Mathematics Education* Untuk Meningkatkan Kemampuan Berpikir Kritis Siswa

Penelitian ini dilakukan dengan tujuan untuk menghasilkan media pembelajaran *e-learning* menggunakan video pembelajaran berbasis *Realistics Mathematic Education* yang bersifat valid, praktis, efektif dan mampu meningkatkan kemampuan berpikir kritis siswa pada materi sistem persamaan linear dua variable.

Penelitian ini menggunakan jenis penelitian Research and Development (R & D) dengan model pengembangan yang digunakan adalah model ADDIE (*Analysis, Design, Development, Implementation, Evaluation*). Adapun subjek pada penelitian ini adalah siswa kelas X IPA 7 SMA Swasta Santo Thomas 2 Medan dengan jumlah 30 orang.

Berdasarkan penelitian yang sudah dilakukan, diperoleh hasil dari validasi ahli materi mendapatkan hasil rata-rata 3,316 yang menunjukkan bahwa validator ahli materi menyatakan layak materi tersebut, dan hasil validasi RPP mendapatkan hasil rata-rata 3,33 yang menunjukkan bahwa validator ahli materi menyatakan RPP layak, sedangkan hasil validasi ahli media diperoleh dengan mendapatkan hasil rata-rata 3,35 yang menunjukkan bahwa validator ahli media menyatakan layak, dan hasil dari validasi *pre-test & post-test* mendapatkan hasil persentase 97,5% yang menunjukkan bahwa validator ahli materi menyatakan sangat layak *pre-test & post-test* di uji pada siswa. Kepraktisan media pembelajaran dilihat melalui hasil angket respon menunjukkan nilai 91,41% dimana persentase tersebut berada pada kategori sangat praktis. Keefektifan media pembelajaran dilihat melalui dilihat melalui ketuntasan belajar klasikal dan hasil angket respon siswa dengan persentase 86,67% dan 91,41% dimana persentase tersebut berada pada kategori sangat efektif. Peningkatan kemampuan berpikir kritis siswa, hasil yang diperoleh tingkat kemampuan berpikir kritis siswa berada pada persentase 85,67% berada pada kategori tinggi, sedangkan berdasarkan uji *N-Gain* nilai rata-rata yang diperoleh siswa adalah 0.7 yang artinya terjadi peningkatan kemampuan berpikir kritis pada siswa dengan kategori tinggi. Sehingga berdasarkan hasil yang diperoleh dapat disimpulkan bahwa media pembelajaran *e-learning* yang dikembangkan pada penelitian ini adalah valid, praktis, efektif serta mampu meningkatkan kemampuan berpikir kritis siswa.

Kata Kunci : Media Pembelajaran *E-learning*, *Realistics Mathematic Education*, Video Pembelajaran, Kemampuan Berpikir Kritis Siswa.

ABSTRACT

Joy Gabriel Nainggolan, NIM 4173311057 (2022). Development of E-learning Media Realistic Mathematics Education-Based to Improve Students' Critical Thinking Ability

This research was conducted with the aim of producing e-learning learning media using Realistics Mathematical Education-based learning videos that are valid, practical, effective and able to improve students' critical thinking skills on the material of a two-variable linear equation system.

This study uses a Research and Development (R & D) type of research with the development model used is the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The subjects in this study were students of class X IPA 7 SMA Private Santo Thomas 2 Medan with a total of 30 people.

Based on the research that has been done, the results of the material expert validation get an average result of 3,316 which indicates that the material expert validator states that the material is feasible, and the results of the RPP validation get an average result of 3.33 which indicates that the material expert validator states that the lesson plan is feasible, while the results of the media expert validation were obtained by getting an average result of 3.35 which indicated that the media expert validator stated that it was feasible, and the results of the pre-test & post-test validation obtained a percentage result of 97.5% which indicated that the material expert validator stated very feasible pre-test & post-test in the test on students. The practicality of learning media seen through the results of the response questionnaire showed a value of 91.41% where the percentage was in the very practical category. The effectiveness of learning media is seen through classical learning completeness and the results of student response questionnaires with a percentage of 86.67% and 91.41% where these percentages are in the very effective category. Increasing students' critical thinking skills, the results obtained that students' critical thinking skills are in the percentage of 85.67% in the high category, while based on the N-Gain test the average value obtained by students is 0.7 which means that there is an increase in students' critical thinking skills. with high category. So based on the results obtained, it can be concluded that the e-learning learning media developed in this study is valid, practical, effective and able to improve students' critical thinking skills.

Keywords: E-learning Media, Realistics Mathematical Education, Learning Videos, Students' Critical Thinking Ability.