

ABSTRAK

Handoyo Hutagalung, NIM 4172111008 (2022). Pengembangan Perangkat Pembelajaran berbasis *Realistic Mathematic Educations* (RME) Berbantuan *Learning Management System* (LMS) Pada Materi Persamaan Kuadrat.

Penelitian ini bertujuan untuk mengembangkan dan menghasilkan produk perangkat pembelajaran berbasis *realistic mathematic educations* (RME) berbantuan *learning management system* (LMS) yang valid, praktis dan efektif pada materi persamaan kuadrat. Jenis penelitian yang digunakan adalah penelitian dan pengembangan (*Research and Development*) yang mengacu pada model pengembangan ADDIE (*Analysis, Design, Development, Implementation, Evaluation*). Subjek yang digunakan dalam penelitian ini adalah siswa kelas X MIA 2 SMA Negeri 1 Sipoholon yang berjumlah 33 orang. Sedangkan objek penelitian ini adalah perangkat pembelajaran *realistic mathematics education* (RME) berbantuan *learning management system* (LMS). Instrument yang digunakan adalah angket validasi materi, media, respon siswa dan guru serta tes hasil ketuntasan belajar siswa. Hasil dalam penelitian ini menunjukkan bahwa: (1) Kevalidan produk perangkat pembelajaran berdasarkan penilaian ahli materi dan ahli media memperoleh skor rata-rata sebesar 3,37 dan 3,5 dengan kategori sangat valid. (2) Kepraktisan perangkat pembelajaran berdasarkan hasil penilaian guru adalah 85,71% dalam hal ini tergolong sangat praktis dan skor kepraktisan berdasarkan hasil penilaian siswa adalah 84,41% dalam hal ini tergolong sangat praktis. (3) Keefektifan perangkat pembelajaran diperoleh dari hasil ketuntasan belajar siswa secara klasikal adalah 84,84% sehingga secara klasikal memenuhi kriteria pencapaian ketuntasan dan siswa merespon positif terhadap media dengan pencapaian persentase sebesar 92,64% yang termasuk dalam kategori positif. Berdasarkan hasil penelitian, pengembangan perangkat pembelajaran berbasis *realistic mathematic educations* (RME) berbantuan *learning management system* (LMS) pada materi persamaan kuadrat ini dapat dikatakan layak dengan kategori valid, praktis, dan efektif.

Kata Kunci : Perangkat Pembelajaran *Realistic Mathematics Education* (RME), *Learning Management System* (LMS), Persamaan Kuadrat, ADDIE

ABSTRACT

Handoyo Hutagalung, NIM 4172111008 (2022). Development of Learning Tools based on Realistic Mathematical Educations (RME) Assisted by Learning Management System (LMS) on Quadratic Equation Material.

This study aims to develop and produce learning tools products based on realistic mathematical educations (RME) assisted by a learning management system (LMS) that are valid, practical and effective on quadratic equations. The type of research used is research and development (Research and Development) which refers to the ADDIE development model (Analysis, Design, Development, Implementation, Evaluation). The subjects used in this study were students of class X MIA 2 SMA Negeri 1 Sipoholon, totaling 33 people. While the object of this research is a realistic mathematics education (RME) learning tool assisted by a learning management system (LMS). The instruments used are material validation questionnaires, media, student and teacher responses and student learning completeness tests. The results in this study indicate that: (1) The validity of the learning device product based on the assessment of material experts and media experts obtained an average score of 3.37 and 3.5 with a very valid category. (2) The practicality of learning devices based on the results of the teacher's assessment is 85.71% in this case classified as very practical and the practicality score based on the results of student assessments is 84.41% in this case classified as very practical. (3) The effectiveness of learning tools obtained from the results of classical student learning mastery is 84.84% so that classically it meets the criteria for mastery achievement and students respond positively to the media with a percentage achievement of 92.64% which is included in the positive category. Based on the results of the research, the development of learning tools based on realistic mathematical educations (RME) assisted by a learning management system (LMS) on this quadratic equation material can be said to be feasible with valid, practical, and effective categories.

Keywords : Realistic Mathematics Education (RME) Learning Tools, Learning Management System (LMS), Quadratic Equations, ADDIE