ABSTRAK

Peserta didik masih kesulitan dalam memecahkan permasalahan soal matematika yang diberikan dalam bentuk cerita karena materi yang disajikan dalam bahan ajar belum terstuktur dan tidak disertai dengan model pembelajaran. Salah satu model pembelajaran yang dapat melatih kemampuan peserta didik dalam memecahkan masalah soal matematika adalah model *problem based learning*. Tujuan dari penelitian ini yaitu untuk mengetahui proses pengembangan e-modul matematika berbasis *problem based learning* berbantu kuis interaktif dan mengetahui kevalidan serta kepraktisan produk. Metode penelitian yang digunakan yaitu ADDIE (*Analysis, Design, Develop, Implementation, Evaluation*). Subjek dari penelitian ini yaitu peserta didik kelas VII SMP Negeri 5 Metro. Teknik pengumpulan data dilakukan dengan wawancara, validasi dan uji kepraktisan. Teknik analisis data dilakukan dengan analisis wawancara, analisis kevalidan dan analisis kepraktisan. Berdasarkan hasil penelitian pengembangan diperoleh rata-rata persentase hasil validasi materi sebesar 85,3% dan validasi media sebesar 96,1%. Rata-rata keseluruhan dari hasil validasi sebesar 90,7% masuk kriteria sangat valid karena *e-modul* matematika dengan model PBL membantu peserta didik untuk mengasah kemampuannya dalam memecahkan permasalahan soal matematika bentuk cerita. E-modul juga disajikan menarik dengan adanya animasi, video pembelajaran *youtube* dan kuis interaktif *wordwall*. Rata-rata persentase hasil uji kepraktisan produk sebesar 88% masuk kriteria sangat praktis karena materi yang disajikan dalam *e-modul* mudah dipahami peserta didik terutama pada pokok bahasan materi operasi hitung bilangan bulat.

Kata kunci: E-Modul, Kuis Interaktif, Pengembangan, Problem Based Learning.

ABSTRACT

Students still have difficulty solving mathematics problems given in story form because the material presented in the teaching materials is not yet structured and is not accompanied by a learning model. One learning model that can train students' abilities in solving mathematical problems is the problem based learning model. The aim of this research is to determine the process of developing a mathematics e-module based on problem based learning assisted by interactive quizzes and to determine the validity and practicality of the product. The research method used is ADDIE (Analysis, Design, Develop, Implementation, Evaluation). The subjects of this research were class VII students at SMP Negeri 5 Metro. Data collection techniques were carried out using interviews, validation and practicality tests. Data analysis techniques were carried out using interview analysis, validity analysis and practicality analysis. Based on the results of development research, the average percentage of material validation results was 85.3% and media validation was 96.1%. The overall average of the validation results was 90.7%, which was considered very valid because the mathematics e-module with the PBL model helped students hone their abilities in solving mathematical problems in the form of stories. The e-module is also presented attractively with animations, youtube learning videos and interactive wordwall quizzes. The average percentage of product practicality test results of 88% falls into very practical criteria because the material presented in the e-module is easy for students to understand, especially on the subject of integer counting operations.

Keywords: *E-Module, Interactive Quiz, Development, Problem Based Learning.*