ABSTRAK

Alfret Ade Putra, 2019: Pengembangan Media Pembelajaran Interaktif Berbasis LMS Moodle ditinjau dari *Cognitive Loads Theory*. Skripsi, Pendidikan Matematika Fakultas Keguruan dan Ilmu Pendidikan Universitas Mercu Buana Yogyakarta.

Pengembangan *E-learning* ini didasari oleh perkembangan IPTEK sebagai sumber daya pemenuhan kompetensi inti dalam kurikulum 2013 yang mana mempermudah siswa dan guru dalam proses pembelajaran.

Penelitian ini menggunakan desain penelitian R&D yang ditinjau dari *cognitive loads theory* dengan model pengembangan Borg & Gall. Adapun langkah-langkah tersebut yaitu: Penelitian dan pengumpulan informasi, perencanaan penelitian, pengembangan produk awal, uji lapangan awal yang melibatkan 4 siswa, revisi hasil uji lapangan awal, uji lapangan lebih luas melibatkan 8 siswa, revisi uji lapangan, uji kelayakan yang melibatkan 32 siswa, dan revisi hasil kelayakan Subjek uji coba dalam penelitian adalah siswa kelas VIII SMP Negeri 1 Mlati, Kab. Sleman, D.I. Yogyakarta. Data dikumpulkan melalui angket dan observasi saat uji coba, kemudian data hasil penelitian dianalisis dengan teknik analisis deskriptif kuantitatif. Tanggapan ahli media memperoleh skor rata-rata 3,91. Sedangkan tanggapan dari ahli materi memperoleh skor rata-rata 3,60 menunjukkan *e-learning* berbasis *moodle* layak dari segi media dan layak dari segi materi. Hasil belajar pada uji pelaksanaan lapangan menunjukkan bahwa seluruh siswa kelas VIII C persentase ketuntasan kelas berada diatas 86%. Hasil angket tanggapan siswa pada uji coba skala kecil dan skala besar menunjukkan bahwa mayoritas siswa memberikan tanggapan positif terhadap kegiatan pembelajaran menggunakan media *e-learning* berbasis LMS Moodle. Produk final *e-learning* berbasis LMS Moodle berisi materi, *link video, link ppt*, kuis, artikel seputar matematika pola bilangan, *chat* dan forum diskusi. Dengan demikian, dari hasil uji pelaksanaan lapangan yang dilakukan dapat disimpulkan bahwa *E-learning* berbasis LMS Moodle pembelajaran matematika bagi siswa kelas VIII C SMP Negeri 1 Mlati, dengan materi "pola bilangan" sudah layak sebagai salah satu sumber belajar baik secara individu maupun kelompok.

Kata kunci: Pengembangan *E-learning,* LMS Moodle, *Cognitive Loads Theory* Matematika, Pola Bilangan.

ABSTRACT

Alfret Ade Putra, 2019: *The development of LMS Moodle-based interactive learning Media was reviewed from Cognitive Loads Theory. Thesis, mathematics education Faculty of teacher training and education in Mercu Buana University of Yogyakarta.*

The development of E-Learning is based on the development of IPTEK as a resource for the fulfillment of core competencies in curriculum 2013 which facilitate students and teachers in the learning process.

The research uses R&D design, based from cognitive loads theory with the Borg & Gall development model. The steps are: research and information collection, research planning, initial product development, preliminary field test involving 4 students, revision of preliminary field test result, wider field test involving 8 students, test revision A field, a feasibility test involving 32 students, and a revision of the feasibility of a trial subject in research is a grade VIII student of SMP Negeri 1 Mlati, Kab. Sleman, D.I. Yogyakarta. Data is collected through polls and observations during trials, and then research results are analyzed with quantitative descriptive analysis techniques. Media expert responses get an average score of 3.91. While the responses of the material experts acquired an average score of 3.60 showed a Moodle-based e-learning is decent in terms of media and worthy of material terms. The results of the study on field implementation test show that all students of class VIII C percentage of class submission are above 86%. The results of the students ' responses to small and large scale trials showed that the majority of students gave positive feedback on learning activities using LMS Moodle-based e-learning media. LMS Moodle's final e-learning product contains material, video links, ppt links, quizzes, articles around mathematical numeral patterns, chat and discussion forums. Thus, from the test results of the implementation of the field can be concluded that E-learning based on LMS Moodle Mathematics learning for students of grade VIII C SMP Negeri 1 Mlati, with material "number pattern" is feasible as one of the sources Study both individually and in groups.

Keywords: *Development of E-learning, LMS Moodle, Cognitive Loads Theory Mathematics, Numbers Pattern.*