ABSTRAK

Paskalia Krisantari, 2017. Pengembangan Lembar Kerja Siswa Model Penemuan Terbimbing Berbasis Web Pada Pokok Bahasan Persamaan Lingkaran Kelas XI SMK N 2 Depok Yogyakarta. Program Studi Pendidikan Matematika, Jurusan Pendidikan Matematika dan IPA, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Sanata Dharma.

Penelitian ini bertujuan untuk: (1) menghasilkan rancangan dan pengembangan LKS model penemuan terbimbing berbasis web, (2) mengetahui efektivitas penggunaan LKS model penemuan terbimbing berbasis web siswa SMK N 2 Depok. Jenis penelitian ini merupakan penelitian dan pengembangan. Berikut merupakan langkah-langkah dalam melakukan penelitian dan pengembangan, yaitu 1) potensi dan masalah, 2) kajian pustaka dan pengumpulan informasi, 3) pembuatan desain, 4) validasi desain, 5) revisi desain produk sampai dihasilkan produk akhir berupa LKS model penemuan terbimbing berbasis web, 6) ujicoba terbatas, 7) revisi, 8) ujicoba lapangan operasional. Jenis data kualitatif dan kuantitatif. Teknik analisis data berupa transkrip wawancara, penyajian data, dan penarikan kesimpulan.

Dari hasil penelitian didapatkan kesimpulan bahwa (1) dalam merancang dan mengembangan LKS model penemuan terbimbing berbasis web dilakukan 1) potensi dan masalah dilakukan dengan Ibu Rum yaitu guru matematika kelas XI TPMP, 2) kajian pustaka dan pengumpulan informasi, 3) desain produk dilakukan menggunakan *wordpress* yang diberi nama *Happy Learning* yang di dalamnya ada menu KD, Indikator, dan LKS; Kontak dan Tentang Penulis; dan Geogebra, 4) validasi produk dilakukan oleh dosen, mahasiswa dan guru matematika dengan skor 3,7 dan kategori "Baik", 5) revisi desain sampai dihasilkan produk akhir berupa LKS model penemuan terbimbing berbasis web. LKS dibuat agar tertampil dalam *Happy Learning*, 6) ujicoba terbatas, dilakukan oleh dua siswa SMK N 2 Depok yang memperoleh skor 3,7 dengan kategori "Baik", 7) revisi 8) uji lapangan operasional dilakukan di kelas XI TPMP dengan lima kali pertemuan. Untuk ujicoba terbatas perlu memperhatikan representasi subjek sehingga hasil tidak berbeda jauh dengan uji lapangan operasional. (2) Berdasarkan analisis hasil belajar siswa setelah menggunakan *Happy Learning* dikatakan kurang efektif atau kefektifitasannya rendah dengan presentase 53,14%. Banyak hal yang menyebabkan pembelajaran kurang efektif. Hal ini didukung oleh hasil kuesioner didapatkan kesimpulan bahwa siswa merasa tertarik dan senang 50%, ada yang mengatakan tidak efektif sebesar 50%, siswa yang cukup memahami materi sebesar 47%, sedangkan yang belum memahami materi ada sebesar 47%, dan 6% tidak paham. 53% mengatakan kurang antusias dalam belajar. Namun, 97% mengatakan LKS Model Penemuan Terbimbing Berbasis Web dapat menjadi inovasi baru dalam pembelajaran. 66% mengatakan bahwa LKS model penemuan terbimbing berbasis web membuat siswa termotivasi untuk semangat belajar.

Kata Kunci: Web, Pengembangan, Efektivitas, LKS, dan Hasil Belajar

ABSTRACT

Paskalia Krisantari, 2017. *Developing a web based guided discovery students worksheet model in Circle Equation Topic for Grade XI of SMK N 2 Depok Yogyakarta*. Mathematic Education Study Program, Department of Mathematic Education and Science, Teacher Training and Education Faculty, Sanata Dharma University Yogyakarta.

This research aims at (1) designing and developing web based guided discovery students worksheet model, (2) investigating the effectiveness of the use of web based guided discovery students worksheet model in SMKN 2 Depok.

This study is included as Research and Development. Here are some stages in conducting the research and development, such as 1) analyzing problems 2) collecting information 3) designing 4) validating design 5) revising the design until the intended result is achieved 6) preliminary field testing 7) main product revision 8) main field testing. This research uses quantitative and qualitative methods to collect the data. The researcher analyzes the data by using the transcript of the interview, the data presentation and the conclusion.

By applying the R&D stages, several processes are conducted 1) potential and problems were analyzed with Mrs. Rum as the Mathematics teacher for grade XI TPMP 2) *wordpress* was used to design the product and Happy Learning was taken as its name, 3) product validation was conducted by the lecturer, students, and the teacher with score 3,7 and it was categorized as "good", 4) main product revision was conducted until the web based guided discovery students worksheet model was achieved. The worksheet was created so that it can appear in Happy Learning, 5) preliminary main testing was conducted by two students of SMKN 2 Depok who achieved score 3,7 which was categorized as "Good", (7) Revision, (8) main product revision was conducted in grade XI TPMP in five meetings using web based guided discovery students worksheet model. For the restricted trials, the researcher should pay attention to the subject representation so the result of the trials will not significantly different with the operational field test. (2) based on the analysis on students' competence, it was found that the effectiveness was rather low with the percentage 53,14%. There were some aspects which caused this issue. The data from the questionnaire showed that students were more interested. However, some said that it was ineffective as well. Students stated that web based guided discovery students worksheet model could be a new innovation in learning. web based guided discovery students worksheet model could help students understand learning materials about circle equation.

Keywords: web, development, effectiveness, students worksheet