ABSTRAK

Supatmono, FX. Catur. (2018). Desain Pembelajaran Materi Sistem Persamaan Linear-Kuadrat (SPLK) dan Sistem Persamaan Kuadrat-Kuadrat (SPKK) Dengan Menggunakan Pendekatan *Flipped Classroom* dan Dampaknya Terhadap Keterampilan Berpikir Tingkat Tinggi Peserta Didik.

Penelitian ini bertujuan untuk: (1) mendeskripsikan desain pembelajaran materi SPLK dan SPKK dua variabel dengan menggunakan pendekatan *flipped classroom* untuk peserta didik kelas X MIPA, dan (2) mengetahui dampak pendekatan *flipped classroom* terhadap keterampilan berpikir tingkat tinggi peserta didik kelas X MIPA.

Jenis penelitian ini adalah penelitian desain berdasarkan Gravemeijer and Cobb. Subjek penelitian adalah 29 peserta didik kelas X MIPA SMA Kolese De Britto. Data dikumpulkan dengan menggunakan observasi pelaksanaan HLT, test dan wawancara. Analisis data yang digunakan dalam penelitian ini berdasarkan Miles and Huberman yaitu reduksi data, penyajian data dan penarikan kesimpulan serta verifikasi.

Peneliti menghasilkan desain pembelajaran dengan menggunakan pendekatan *flipped classroom* pada topic Sistem Persamaan Linear Kuadrat (SPLK) dan Sistem Persamaan Kuadrat-Kuadrat (SPKK) dua variabel yang telah diujicobakan pada satu kelas sebanyak empat jam pertemuan. Pendidik membuat kelas virtual berupa *fan page facebook* dan mengisi kelas virtual tersebut dengan video, dokumen bahan belajar, dan tugas. Sebelum proses pembelajaran di kelas, peserta didik melihat video dan dokumen bahan belajar lalu mengerjakan dan mengunggah tugas. Pada saat proses pembelajaran di kelas, pendidik mengkonfirmasi hasil belajar di rumah lalu memberikan masalah berupa soal yang menuntut keterampilan berpikir tingkat tinggi untuk didiskusikan peserta didik dalam kelompok. Pada pertemuan pertama peserta didik mempelajari, mengerjakan dan mengunggah tugas 1 tentang SPLK dan mendiskusikan masalah 1 di kelas. Pertemuan kedua peserta didik mempelajari, mengerjakan, dan mengunggah tugas 2 tentang SPKK dan mendiskusikan masalah 2 saat di kelas. Pertemuan ketiga peserta didik mengerjakan, mengunggah tugas 3 tentang cara alternatif menyelesaikan SPKK dan saat dikelas peserta didik mendiskusikan tugas 3. Pada pertemuan keempat diadakan tes selama 25 menit dilanjutkan refleksi pembelajaran selama 15 menit. Pencapaian 29 peserta didik setelah mengerjakan tes pada kelas uji coba terhadap indikator proses berpikir kreatif sebagai berikut: 16 jawaban memenuhi satu indikator, sembilan jawaban memenuhi dua indikator, tiga jawaban memenuhi tiga indikator, dan satu jawaban memenuhi empat indikator. Hasil tes kelas penelitian yang diikuti oleh 29 peserta didik menunjukkan bahwa: 14 jawaban peserta didik memenuhi satu indikator, 14 jawaban memenuhi dua indikator, dan satu jawaban memenuhi tiga indikator. Setelah dilakukan wawancara terhadap tiga peserta didik kelas penelitian yang jawabannya memenuhi satu, dua, dan tiga indikator, peserta didik yang jawabannya memenuhi satu dan tiga indikator setelah wawancara berubah menjadi dua dan empat indikator. Peserta didik yang memenuhi dua indikator, setelah wawancara tetap memenuhi dua indikator.

Kata kunci : Desain pembelajaran, *flipped classroom*, kelas virtual, indikator proses berpikir kreatif.

ABSTRACT

Supatmono, FX. Catur. (2018). Learning Design Material of Linear-Quadratic Equation System (LQES) and Quadratic-Quadratic Equation System (QQES) Using the Flipped Classroom Approach and Its Impact on Students' High-Order Thinking Skills.

This study aims to: (1) describe the learning design of LQES and QQES materials in two variables using the flipped classroom approach for students of class X MIPA, (2) know the impact of the classroom flipped approach on high-level thinking skills of students of class X MIPA.

This type of research is a design research based on Gravemeijer and Cobb. The research subjects were 29 students of class X MIPA De Britto College High School. Data was collected using HLT observations, tests and interviews. Analysis of the data used in this study is based on Miles and Huberman, namely data reduction, data presentation and drawing conclusions and verification.

The researcher produced a learning design using a classroom flipped approach on the topic of linear square equation (LQES) and quadratic quadratic system (QQES) two variables that had been tested in one class as many as four hours of meetings. Educators create a virtual class in the form of a Facebook fan page and fill the virtual class with videos, learning material documents, and assignments. Before the learning process in class, students see videos and learning material documents and work on and upload assignments. During the learning process in the classroom, educators confirm the results of learning at home and then provide problems in the form of questions that require high-level thinking skills for discussion by students in groups. At the first meeting students learn, work on and upload assignment 1 about LQES and discuss problem 1 in class. The second meeting of students learn, work, and upload task 2 about QQES and discuss problem 2 when in class. The third meeting of the students worked, uploaded assignment 3 about alternative ways of completing the QQES and when the class of students discussed the assignment 3. At the fourth meeting a test was held for 25 minutes followed by reflection of learning for 15 minutes. The students' achievement on the trial class for the creative thinking process indicators were as follows: 16 students fulfilled one indicator, nine students fulfilled two indicators, three students fulfilled three indicators, and one students fulfilled four indicators. The results of the research class tests which were followed by 29 students showed that: 14 students fulfilled one indicator, 14 students fulfilled two indicators, and one student fulfilled three indicators. After interviewing three research class students whose answers fulfilled one, two, and three indicators, students whose answers met one and three indicators after the interview changed into two and four indicators. Students who fulfill two indicators, after the interview still meet the two indicators.

Keywords: Learning design, flipped classroom, virtual classroom, indicators of the creative thinking process.