

ABSTRAK

AGIT WAHYUNING KALRI. Upaya Meningkatkan Kemampuan Berpikir Kritis Matematis dengan Penerapan Model Pembelajaran Kooperatif Tipe TPSS Berbantuan ICT Pada Materi Trigonometri Kelas X OTKP 1 SMK Negeri 8 Jakarta. Skripsi. Jakarta: Program Studi Pendidikan Matematika, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Negeri Jakarta, 2018.

Penelitian ini bertujuan untuk mengetahui penerapan model pembelajaran kooperatif tipe TPSS (*Think Pair Square Share*) berbantuan ICT pada materi trigonometri dapat meningkatkan kemampuan berpikir kritis matematis peserta didik di kelas X OTKP 1 SMK Negeri 8 Jakarta. Kemampuan berpikir kritis matematis peserta didik di Indonesia dapat digolongkan dalam kategori rendah. Hal ini berdasarkan hasil PISA dan TIMSS, dimana Indonesia masih berada di peringkat bawah. Berdasarkan hasil kemampuan tes awal kemampuan berpikir kritis matematis dan hasil wawancara dengan salah satu guru matematika di SMK Negeri 8 Jakarta kemampuan berpikir kritis peserta didik X OTKP 1 SMK Negeri 8 Jakarta juga terbilang masih kurang. Indikator yang akan ditingkatkan pada penelitian ini antara lain : mengidentifikasi data dan konsep, memeriksa kebenaran, memecahkan masalah, dan membuat kesimpulan.

Jenis penelitian ini merupakan penelitian tindakan kelas. Tahapan yang dilaksanakan diantaranya perencanaan, pelaksanaan, analisis, dan refleksi. Penelitian ini dilakukan selama 3 siklus yang terdiri dari 2 pertemuan setiap siklusnya. Setiap akhir siklus, peserta didik diberikan tes dengan indikator kemampuan berpikir kritis untuk mengukur kemampuan peserta didik. Analisis data dilakukan secara kualitatif dan kuantitatif. Data yang dianalisis secara kualitatif berupa hasil wawancara, catatan lapangan, dan dokumentasi. Serta data yang dianalisis secara kuantitatif berupa nilai tes akhir siklus.

Hasil penelitian menunjukkan bahwa pembelajaran matematika melalui model pembelajaran kooperatif tipe TPSS berbantuan ICT mampu meningkatkan kemampuan berpikir kritis matematis peserta didik. Hal tersebut ditunjukkan melalui peningkatan rata-rata tes kemampuan berpikir kritis matematis peserta didik selama tiga siklus. Nilai rata-rata kemampuan berpikir kritis matematis peserta didik kelas X OTKP 1 SMK Negeri 8 Jakarta pada siklus I yaitu 46,5 dan siklus II yaitu 67,9 serta pada siklus III yaitu 86,1. Seluruh peserta didik mendapat nilai di atas kriteria minimum kemampuan berpikir kritis matematis. Seluruh subjek penelitian mendapat nilai antara 61 sampai 80 atau masuk dalam kategori baik pada akhir siklus III.

Kata Kunci : Berpikir Kritis Matematis, Model Pembelajaran Kooperatif Tipe TPSS, *Think-Pair-Square-Share* (TPSS), ICT, Trigonometri.

ABSTRACT

AGIT WAHYUNING KALRI. *In efforts to improve Critical Thinking Ability of Mathematics by Implementing Cooperative Learning Models Type TPSS with ICT-Assisted in Class X OTKP 1 Trigonometry Materials at SMK Negeri 8 Jakarta.* Thesis S1. Jakarta: Mathematics Education Study Program, Faculty of Mathematics and Natural Sciences, State University of Jakarta, 2018.

This research aims to determine, if the application of the TPSS (Think Pair Square Share) cooperative type learning model on trigonometry material can improve student's critical thinking ability of mathematics in class X OTKP 1 SMK Negeri 8 Jakarta. Mathematical critical thinking ability of students in Indonesia can be classified in the low category. This category is based on the results of PISA and TIMSS, where Indonesia is still ranked on lower bracket. Based on the results of the initial ability to test mathematical critical thinking skills and the results of interviews with one of the mathematics teachers at SMK Negeri 8 Jakarta, the critical thinking skills of X OTKP 1 students of SMK Negeri 8 Jakarta were also still lacking. The indicators that will be improved in this study are include: identifying data and concepts, checking the truth, solving problems, and making conclusions.

The type of research is classroom action research. The stages carried out include planning, implementing, analyzing, and reflecting. This research was conducted for 3 cycles consisting of 2 meetings each every cycle. At the end of each cycle, students are given a test with an indicator of the ability to think critically to measure students' abilities. Data analysis is carried out qualitatively and quantitatively. The data were qualitatively analyzed in the form of interviews, field notes, and documentation. As well as the data analyzed quantitatively in the form of final test cycle score.

The results showed that mathematics learning through ICT-assisted cooperative learning model TPSS was able to improve students' critical thinking skills. This is shown through an increase in the average test of students' critical thinking skills mathematically for three cycles. The average value of students' critical thinking skills in class X OTKP 1 of SMK Negeri 8 Jakarta in the first cycle is scored at 46.5 and cycle II is now scored at 67.9 and in the cycle III is scored at 86.1. All students get grades above the minimum criteria for mathematical critical thinking skills. All research subjects scored between 61 to 80 or included in good category at the end of cycle III.

Keywords: *Critical Thinking Ability of Mathematics , Cooperative Learning Model Type TPSS, Think-Pair-Square-Share (TPSS), ICT, Trigonometry*