

## ABSTRAK

**AJENG KYAN ISLAMI.** Upaya Meningkatkan Kemampuan Menyelesaikan Soal *Open-Ended* Melalui Pendekatan *Scientific* dengan Model *Thinking Aloud Pair Problem Solving* (TAPPS) Pada Pokok Bahasan Statistika Dan Peluang di Kelas 7-5 SMP Negeri 2 Jakarta. **Skripsi.** Jakarta: Program Studi Pendidikan Matematika, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Negeri Jakarta, 2018.

Berdasarkan hasil observasi dan hasil tes kemampuan awal menyelesaikan soal *open-ended* yang dilakukan di kelas 7-5 SMP Negeri 2 Jakarta, dapat dikatakan bahwa kemampuan menyelesaikan soal *open-ended* siswa masih tergolong rendah, sehingga kemampuan tersebut perlu ditingkatkan. Penerapan pendekatan *scientific* dengan model pembelajaran *Thinking Aloud Pair Problem Solving* (TAPSS) dapat dijadikan sebagai salah satu alternatif dalam pelaksanaan pembelajaran di kelas. Tujuan dari penelitian ini adalah untuk meningkatkan kemampuan menyelesaikan soal *open-ended* matematika siswa kelas VII-5 SMP Negeri 2 Jakarta melalui penerapan pendekatan *scientific* dengan model pembelajaran *Thinking Aloud Pair Problem Solving* (TAPSS).

Penelitian ini merupakan penelitian tindakan kelas (*classroom action research*) yang dilaksanakan dalam tiga siklus, setiap siklus terdiri dari empat tahapan, yaitu: perencanaan, pelaksanaan, pengamatan, dan refleksi. Pembelajaran di setiap siklus dengan menerapkan pendekatan *scientific* dengan model pembelajaran TAPSS. Siswa diberikan tes akhir siklus untuk mengukur kemampuan menyelesaikan soal *open-ended* matematika siswa. Penelitian ini berlangsung dari bulan April hingga Mei 2015 di kelas VII-5 SMP Negeri 2 Jakarta tahun ajaran 2014/2015 dengan jumlah siswa sebanyak 36 orang siswa.

Hasil penelitian menunjukkan bahwa penerapan pendekatan *scientific* dengan model pembelajaran *Thinking Aloud Pair Problem Solving* (TAPSS) dapat meningkatkan kemampuan menyelesaikan soal *open-ended* matematika siswa. Hal tersebut ditunjukkan dengan adanya peningkatan nilai rata-rata tes kemampuan menyelesaikan soal *open-ended* yang diberikan setiap akhir siklus. Rata-rata nilai kemampuan menyelesaikan soal *open-ended* siswa kelas VII-5 pada penelitian pendahuluan adalah 46,97, pada siklus I meningkat menjadi 60,56, pada siklus II meningkat menjadi 69,19 dan pada siklus III meningkat menjadi 77,78. Jumlah siswa yang mencapai atau melebihi nilai 71 yang menjadi kriteria ketuntasan minimal (KKM) pada tes akhir siklus juga mengalami peningkatan. Pada penelitian pendahuluan terdapat 7 siswa (19,4%), pada siklus I meningkat menjadi 12 siswa (33,3%), pada siklus II meningkat menjadi 19 siswa (52,8%), dan pada siklus III meningkat menjadi 27 siswa (75%).

**Kata kunci :** *Kemampuan Menyelesaikan Soal Open-Ended, Pendekatan Scientific, Model Thinking Aloud Pair Problem Solving*

## ABSTRACT

**AJENG KYAN ISLAMI.** Efforts to Improve the Ability to Complete Open-Ended Problems Through a Scientific Approach using Learning Model of Thinking Aloud Pair Problem Solving (TAPSS) on Statistics and Opportunities in Class VII-5 of SMPN 2 Jakarta. **Thesis.** Jakarta: Mathematics Education, Faculty of Mathematics and Natural Sciences, State University of Jakarta, 2018.

Based on the results of observations and the results of the initial ability test to solve open-ended problems conducted in grades 7-5 of SMP Negeri 2 Jakarta, it can be said that the ability to solve open-ended questions of students is still relatively low, so that the ability needs to be improved. The application of the scientific approach to the Thinking Aloud Pair Problem Solving (TAPSS) learning model can be used as an alternative in the implementation of classroom learning. The purpose of this study was to improve the ability to solve open-ended mathematical problems in class VII-5 of SMP Negeri 2 Jakarta through the application of a scientific approach to the Thinking Aloud Pair Problem Solving (TAPSS) learning model.

This study is a classroom action research conducted in three cycles, each cycle consisting of four stages, namely: planning, implementing, observing, and reflecting. Learning in each cycle by applying the scientific approach to the TAPSS learning model. Students are given a final cycle test to measure students' ability to solve open-ended mathematical problems. This study took place from April to May 2015 in class VII-5 of SMP Negeri 2 Jakarta in the 2014/2015 school year with a total of 36 students.

The results showed that the application of the scientific approach to the Thinking Aloud Pair Problem Solving (TAPSS) learning model could improve the ability to solve students' open-ended mathematical problems. This is indicated by an increase in the average value of the ability to solve open-ended problems given at the end of each cycle. The average value of open-ended problem solving skills of Grade VII-5 students in the preliminary study was 46.97, in cycle I it increased to 60.56, in cycle II it increased to 69.19 and in cycle III it increased to 77.78. The number of students who reached or exceeded the 71 grade which became the minimum completeness criteria (KKM) in the final cycle test also experienced an increase. In the preliminary study there were 7 students (19.4%), in the first cycle increased to 12 students (33.3%), in the second cycle increased to 19 students (52.8%), and in the third cycle increased to 27 students (75%).

**Keywords :** *Open-Ended Problem Solving Ability, Scientific Approach, Thinking Aloud Pair Problem Solving Model*