

ABSTRAK

Ogi Wahyudi. (2015). Peningkatan Kemampuan Berpikir Kritis Matematis Siswa SMP melalui Model *Problem-Based Learning* dan *Project-Based Learning*

Penelitian ini berjudul Peningkatan Kemampuan Berpikir Kritis Matematis Siswa SMP melalui Model *Problem-Based Learning* dan *Project-Based Learning*. Penelitian ini dilatarbelakangi oleh penelitian-penelitian sebelumnya yang mengatakan bahwa kemampuan berpikir kritis matematis siswa dapat ditingkatkan melalui penerapan model *problem-based learning* atau model *project-based learning*. Untuk mengetahui besar perbedaan peningkatan kemampuan berpikir kritis matematis siswa melalui penerapan kedua model tersebut, maka perlu diteliti mengenai perbandingan kemampuan berpikir kritis matematis melalui penerapan kedua model tersebut. Penelitian ini bertujuan untuk mengetahui perbedaan peningkatan kemampuan berpikir kritis matematis antara siswa yang mendapatkan pembelajaran model *problem-based learning* dan siswa yang mendapatkan pembelajaran model *project-based learning*. Selain itu, penelitian ini juga untuk mengetahui sikap siswa terhadap pembelajaran melalui model *problem-based learning* dan pembelajaran melalui model *project-based learning*. Penelitian ini dilaksanakan di salah satu SMP negeri di Bandung dengan sampel penelitian adalah kelas VII. Data penelitian diperoleh dari hasil tes kemampuan berpikir kritis matematis, angket sikap siswa, lembar observasi, dan jurnal harian siswa dengan pengolahan data menggunakan *software SPSS versi 20 for windows*. Hasil penelitian menunjukkan bahwa: (1) tidak terdapat perbedaan peningkatan kemampuan berpikir kritis matematis siswa yang pembelajarannya melalui model *problem-based learning* dan siswa yang pembelajarannya menggunakan model *project-based learning*; (2) Kualitas peningkatan kemampuan berpikir kritis matematis siswa yang mendapatkan pembelajaran model *problem-based learning* dan kualitas peningkatan kemampuan berpikir kritis matematis siswa yang mendapatkan pembelajaran model *problem-based learning* tergolong sedang; (3) Secara umum, sikap siswa terhadap model *problem-based learning* adalah positif (91,47%) dan sikap siswa terhadap model *project-based learning* adalah positif (86,27%).

Kata Kunci: Kemampuan berpikir kritis matematis, model *problem-based learning*, model *project-based learning*, sikap siswa

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ABSTRACT

Ogi Wahyudi. (2015). The Enhancement of Junior High School Students' Mathematical Critical Thinking Ability through Problem-Based Learning and Project-Based Learning

This study entitled “The Enhancement of Junior High School Students' Mathematical Critical Thinking Ability through Problem-Based Learning and Project-Based Learning.” The background of this study is due to meta-analysis of previous studies describing that problem-based learning and project-based learning are able to enhance mathematical critical thinking ability. To know the distinction values of enhancement of students' mathematical critical thinking ability, it is important to develop a study about comparison of enhancement students' mathematical critical thinking ability through implication both models. The purposes of this study are: (1) to analyze statistically the enhancement distinction of mathematical critical thinking ability between students who obtained problem-based learning and students who obtained project-based learning; (2) to describe students' attitude toward problem-based learning and project-based learning. This study was conducted in one of public junior high school in Bandung in which 7th grader students were selected as samples. Quasi experimental method was applied in this study with non-equivalent control group design. The data collection used the test of mathematical critical thinking ability, questionnaires of students' attitude, observation sheets, and students' daily journal. Data processing was performed by SPSS 20th version for windows. The result of study shows that: (1) There is no distinction of the enhancement of mathematical critical thinking ability between the students who obtain problem-based learning and students who obtained project-based learning; (2) the quality improvement of mathematical critical thinking ability of students who get learning using problem-based learning or project-based learning are in the middle category (3) Generally, the students' attitude toward problem-based learning is positive (91,47%) and project-based learning is positive (86,27%).

Keywords: Mathematical Critical Thinking Ability, Problem-Based Learning, Project-Based Learning, Students' Attitude