ABSTRAK

Kemampuan pemecahan masalah matematis adalah kemampuan dalam memahami, merencanakan, menyelesaikan dan mengevaluasi permasalahan untuk menemukan solusi. Tujuan dari penelitian adalah 1) mendeskripsikan penerapan model PBL dalam meningkatkan kemampuan pemecahan masalah pada soal literasi matematika peserta didik kelas X-E2 SMA BOPKRI 2 Yogyakarta pada pembelajaran SPLTV, dan 2) menganalisis kemampuan pemecahan masalah berbasis literasi matematika dalam model PBL pada peserta didik kelas X-E2 SMA BOPKRI 2 Yogyakarta pada pembelajaran SPLTV.

Penelitian ini merupakan penelitian deskriptif kualitatif dengan subjek peserta didik kelas X-E2 SMA BOPKRI 2 Yogyakarta dengan subjek 19 peserta didik kelas X. Metode pengumpulan data yang digunakan pada penelitian adalah observasi, tes tertulis (tes kemampuan awal dan tes kemampuan akhir), dan wawancara. Hasil observasi dianalisis secara deskriptif dengan mencari rata-rata persentase keterlaksanaan pembelajaran, hasil tes kemampuan awal dan tes kemampuan akhir dianalisis secara deskriptif menentukan nilai *N-Gain*, hasil wawancara juga dianalisis secara deskriptif.

Hasil penelitian ini adalah 1) keterlaksanaan penerapan model PBL di kelas X-E2 SMA BOPKRI 2 Yogyakarta pada materi SPLTV diperoleh rata-rata sebesar 90,62% dan masuk pada kategori sangat baik. Dapat disimpulkan proses keterlaksanaan pembelajaran di kelas X-E2 SMA BOPKRI 2 Yogyakarta diterapkan dengan baik dan sesuai dengan aspek model PBL. 2) analisis kemampuan pemecahan masalah peserta didik tergolong kuat pada setiap soal dalam indikator merumuskan strategi penyelesaian terdapat 10 peserta didik (52,6%) mampu merumuskan masalah dengan benar. Kemampuan pemecahan masalah peserta didik tergolong lemah dalam indikator mengevaluasi hasil pemecahan masalah terdapat 17 peserta didik (89,4%) yang belum mampu mengevaluasi hasil penyelesaian. Selain itu kemampuan pemecahan masalah mengalami peningkatan setelah diterapkan model PBL termasuk pada indikator merumuskan strategi pemecahan masalah, menunjukkan bahwa peserta didik semakin mampu dalam menyusun strategi penyelesaian dengan baik. Namun pada indikator mengevaluasi hasil pemecahan masalah masih perlu untuk ditingkatkan, Model PBL terbukti mendorong peserta didik untuk mampu memahami dan memecahkan permasalahan terlebih pada indikator merumuskan strategi pemecahan masalah, selain itu perlu membiasakan peserta didik untuk melakukan evaluasi hasil pemecahan masalah.

Kata kunci: Kemampuan pemecahan masalah matematis, Model *Problem Based Learning*, Literasi matematika

ABSTRACT

Mathematical problem-solving ability is the capacity to understand, plan, solve, and evaluate problems in order to find solutions. The objectives of this research are: (1) to describe the implementation of the Problem-Based Learning (PBL) model in enhancing students' problem-solving abilities in mathematical literacy questions among Grade X-E2 students of BOPKRI 2 Senior High School Yogyakarta during the learning of Three-Variable Linear Equations (SPLTV), and (2) to analyze students' problem-solving abilities based on mathematical literacy within the PBL model among Grade X-E2 students of BOPKRI 2 Senior High School Yogyakarta in learning SPLTV.

This research is a descriptive qualitative study with the subjects being 19 tenth-grade students (Class X-E2) of BOPKRI 2 Senior High School Yogyakarta. The data collection methods used in this study include observation, written tests (pre-test and post-test), and interviews. The observation results were analyzed descriptively by calculating the average percentage of learning implementation. The results of the pre-test and post-test were analyzed descriptively to determine the N-Gain score. The interview results were also analyzed descriptively.

The results of this study are: (1) the implementation of the Problem-Based Learning (PBL) model in Class X-E2 of BOPKRI 2 Senior High School Yogyakarta on the topic of Three-Variable Linear Equations (SPLTV) achieved an average score of 90.62%, which falls into the "very good" category. It can be concluded that the learning process in Class X-E2 was carried out effectively and in accordance with the components of the PBL model.(2) the analysis shows that students' problem-solving abilities are relatively strong in each item under the indicator of formulating solution strategies, with 10 students (52.6%) able to correctly formulate the problem. However, students' problem-solving abilities are considered weak in the indicator of evaluating the results of problem-solving, with 17 students (89.4%) unable to evaluate their solutions. Furthermore, students' problem-solving abilities improved after the implementation of the PBL (Problem-Based Learning) model, particularly in the indicator of formulating problem-solving strategies, indicating that students are increasingly capable of constructing effective solution strategies. Nevertheless, in the indicator of evaluating the results of problem-solving, further improvement is needed. The PBL model has been proven to encourage students to understand and solve problems, especially in the indicator of formulating solution strategies. However, it is also necessary to habituate students to evaluate the results of their problem-solving efforts.

***Keywords**: Mathematical problem-solving ability, Problem Based Learning Model, Mathematical literacy*