

ABSTRAK

Klau, Maria Marlince Rika 2026, Penerapan *Problem Based Learning* Berbasis *Deep Learning* Berbantuan Kartu Warna Dua Sisi Untuk Meningkatkan Hasil Belajar Siswa SMPN 25 Malang. Tugas Akhir Pendidikan Matematika, Fakultas Ilmu Pendidikan, Universitas Tribhuwana Tunggaladewi Malang. Pembimbing (I) Nila Kartika Sari, S.Pd.,M.Pd dan pembimbing (II) Rudy Setiawan, S.Pd.,M.Pd

Kata kunci: *Problem Based Learning*, *Deep Learning*, kartu warna dua sisi, hasil belajar, Persamaan Linear Satu Variabel (PLSV).

Penelitian ini bertujuan untuk menerapkan *Problem Based Learning* berbasis *Deep Learning* berbantuan kartu warna dua sisi dalam meningkatkan hasil belajar siswa SMPN 25 Malang. Penelitian ini menggunakan metode Penelitian Tindakan Kelas (PTK) model Kemmis dan McTaggart yang terdiri atas tahap perencanaan, pelaksanaan tindakan, observasi, dan refleksi. Penelitian dilaksanakan dalam dua siklus dengan subjek penelitian sebanyak 32 siswa kelas VII B SMP Negeri 25 Malang. Teknik pengumpulan data meliputi tes, observasi, wawancara, angket, dan dokumentasi. Analisis data dilakukan secara deskriptif kuantitatif dan kualitatif.

Hasil penelitian menunjukkan bahwa penerapan model *Problem Based Learning* berbasis *Deep Learning* berbantuan kartu warna dua sisi dapat meningkatkan hasil belajar siswa. Pada tahap pra siklus, nilai rata-rata kelas sebesar 48,75 dengan persentase ketuntasan belajar 6,25%. Setelah diterapkan tindakan pada siklus I, nilai rata-rata meningkat menjadi 69,21 dengan persentase ketuntasan belajar 53,12%. Pada siklus II, nilai rata-rata kembali meningkat menjadi 83,12 dengan persentase ketuntasan belajar mencapai 87,50%, sehingga telah memenuhi indikator keberhasilan yang ditetapkan. Sehingga dapat disimpulkan bahwa penerapan model *Problem Based Learning* berbasis *Deep Learning* berbantuan kartu warna dua sisi efektif dalam meningkatkan hasil belajar matematika siswa pada materi Persamaan Linear Satu Variabel (PLSV) kelas VII B SMP Negeri 25 Malang.

ABSTRACT

Klau, Maria Marlince Rika. 2026. *The Implementation of Deep Learning-Based Problem Based Learning Assisted by Two-Sided Colored Cards to Improve Students' Learning Outcomes at SMP Negeri 25 Malang. Final Project, Mathematics Education Study Program, Faculty of Education, Tribhuwana Tungadewi University Malang. Advisor I: Nila Kartika Sari, S.Pd., M.Pd.; Advisor II: Rudy Setiawan, S.Pd., M.Pd.*

Keywords: *Problem Based Learning, Deep Learning, two-sided colored cards, learning outcomes, One Variable Linear Equation (OVLE).*

This study aimed to implement a Deep Learning-based Problem Based Learning (PBL) model assisted by two-sided color cards to improve the learning outcomes of students at SMP Negeri 25 Malang. The study employed a Classroom Action Research (CAR) method using the Kemmis and McTaggart model, which consists of four stages: planning, action, observation, and reflection. The research was conducted in two cycles involving 32 students of class VII B at SMP Negeri 25 Malang. Data were collected through tests, observations, interviews, questionnaires, and documentation. The data were analyzed using descriptive quantitative and qualitative methods.

The results showed that the implementation of the Deep Learning-based Problem Based Learning model assisted by two-sided color cards improved students' learning outcomes. In the pre-cycle stage, the class average score was 48.75, with a learning mastery percentage of 6.25%. After the implementation of the action in Cycle I, the average score increased to 69.21, with a learning mastery percentage of 53.12%. In Cycle II, the average score further increased to 83.12, and the learning mastery percentage reached 87.50%, meeting the predetermined success indicators. Therefore, it can be concluded that the implementation of the Deep Learning-based Problem Based Learning model assisted by two-sided color cards is effective in improving students' mathematics learning outcomes on the topic of One-Variable Linear Equations (PLSV) in class VII B of SMP Negeri 25 Malang.