

ABSTRAK

Faradila Rista Monica Sahda. 2026. Penerapan *Problem Based Learning* Berbasis E-LKPD dan Gamifikasi terhadap Hasil Belajar dan Motivasi Siswa Kelas X.9 SMA Bima Ambulu. Skripsi. Program Studi Pendidikan Biologi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Jember.

Pembimbing: (1) Indah Rakhmawati Afrida, S.Si., M.Pd. (2) Ika Priantari, S.Si., M.Pd.

Kata kunci: *Problem Based Learning*, E-LKPD, gamifikasi, hasil belajar, motivasi belajar.

Penelitian ini dilatarbelakangi oleh rendahnya hasil belajar dan motivasi belajar siswa kelas X.9 SMA Bima Ambulu. Pembelajaran yang telah dilakukan melalui ceramah, diskusi, presentasi, dan praktikum belum berjalan optimal karena siswa masih kurang fokus, kurang antusias, dan kurang aktif. Hal ini berdampak pada rendahnya hasil belajar yang ditunjukkan oleh ketuntasan materi virus yang fluktuatif dan sempat mencapai 45,71%. Selain itu, hasil angket awal menunjukkan mayoritas siswa berada pada kategori cukup termotivasi 90,32%, sedangkan yang termotivasi hanya 6,45%.

Penelitian ini bertujuan untuk meningkatkan hasil belajar dan motivasi belajar siswa melalui penerapan model *Problem Based Learning* (PBL) berbasis E-LKPD dan gamifikasi pada materi Perubahan Lingkungan. Penelitian ini merupakan Penelitian Tindakan Kelas (PTK) model Kemmis dan McTaggart yang dilaksanakan dalam tiga siklus. Subjek penelitian adalah 31 siswa kelas X.9 SMA Bima Ambulu. Teknik pengumpulan data meliputi tes hasil belajar, angket motivasi, observasi, dan dokumentasi. Data dianalisis secara deskriptif kuantitatif.

Hasil penelitian menunjukkan bahwa penerapan *Problem Based Learning* berbasis E-LKPD dan gamifikasi. Persentase ketuntasan hasil belajar juga meningkat dari 54,83% pada Siklus I menjadi 77,41% pada Siklus II dan mencapai 80,64% pada Siklus III sehingga telah memenuhi indikator keberhasilan penelitian. Peningkatan hasil belajar didukung oleh nilai N-Gain sebesar 0,36 pada Siklus I dan menurun menjadi 0,30 pada Siklus III nilai N-Gain sebesar 0,36 dengan kategori sedang. Motivasi belajar siswa juga mengalami peningkatan secara bertahap, yaitu dari 58,06% pada Siklus I menjadi 74,19% pada Siklus II dan mencapai 80,64% pada Siklus III, sehingga memenuhi indikator keberhasilan penelitian dan menunjukkan bahwa mayoritas siswa berada pada kategori motivasi tinggi.

ABSTRACT

Faradila Rista Monica Sahda. 2026. The Implementation of E-LKPD-Based *Problem-Based Learning* and Gamification on the Learning Outcomes and Motivation of 10th Grade Class X.9 Students at Bima Ambulu High School. Thesis. Biology Education Program, Faculty of Teacher Training and Education, Muhammadiyah University of Jember.

Advisors: (1) Indah Rakhmawati Afrida, S.Si., M.Pd. (2) Ika Priantari, S.Si., M.Pd.

Keywords: *Problem-Based Learning*, E-LKPD, gamification, learning outcomes, learning motivation.

This study was motivated by the low learning outcomes and learning motivation among 10th-grade students in Class X.9 at Bima Ambulu High School. The teaching methods used—including lectures, discussions, presentations, and laboratory experiments—had not been effective because students remained unfocused, unenthusiastic, and unengaged. This resulted in low learning outcomes, as evidenced by fluctuating mastery rates for the virus curriculum, which at one point dropped to 45.71%. In addition, the results of the initial questionnaire showed that the majority of students were in the “moderately motivated” category 90.32%, while only 6.45% were “highly motivated.”

This study aims to improve students’ learning outcomes and motivation through the application of a *Problem-Based Learning* (PBL) model based on E-LKPD and gamification in the subject of Environmental Change. This study is a Classroom Action Research (CAR) following the Kemmis and McTaggart model, conducted in three cycles. The research subjects were 31 students in Class X.9 at Bima Ambulu High School. Data collection techniques included learning outcome tests, motivation questionnaires, observations, and documentation. The data were analyzed using quantitative descriptive methods.

The results showed that the implementation of the *Problem-Based Learning* model based on E-LKPD and gamification was effective. The percentage of learning achievement also increased from 54.83% in Cycle I to 77.41% in Cycle II and reached 80.64% in Cycle III, thereby meeting the research success indicators. The improvement in learning outcomes was supported by an N-Gain value of 0.36 in Cycle I, which decreased to 0.30 in Cycle III; the N-Gain value of 0.36 falls into the moderate category. Students’ learning motivation also increased gradually, from 58.06% in Cycle I to 74.19% in Cycle II and reaching 80.64% in Cycle III, thereby meeting the research success indicators and indicating that the majority of students fell into the high motivation category.