

ABSTRAK

ANIS KHAIRUNNISA. 2026. **PENGARUH PBL BERBANTU *LIVEWORKSHEET* TERHADAP KEMAMPUAN BERPIKIR KRITIS DAN HASIL BELAJAR PESERTA DIDIK PADA MATERI VIRUS.** (Studi Eksperimen pada Peserta Didik Kelas X MAS BPI Baturompe Tahun Ajaran 2025/2026). Skripsi Jurusan Pendidikan Biologi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Siliwangi, Tasikmalaya.

Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran *problem based learning* (PBL) berbantu *liveworksheet* terhadap kemampuan berpikir kritis dan hasil belajar peserta didik pada materi virus di kelas X MAS BPI Baturompe Tahun Ajaran 2025/2026. Penelitian ini dilaksanakan pada bulan November 2025. Metode yang digunakan pada penelitian *quasi-experiment* dengan desain penelitian *Non-equivalent Control Group Design*. Populasi dalam penelitian ini yaitu seluruh kelas X dengan jumlah 83 peserta didik. Adapun sampel yang digunakan yaitu kelas X-1 sebagai kelas eksperimen dan kelas X-3 sebagai kelas kontrol dengan jumlah peserta didik masing-masing 28 orang. Penentuan sampel menggunakan teknik *purposive sampling*. Instrumen penelitian yang digunakan pada penelitian ini adalah tes uraian kemampuan berpikir kritis berjumlah 11 butir soal dan 35 soal pilihan majemuk untuk hasil belajar. Hasil uji hipotesis menunjukkan kemampuan berpikir kritis kelas eksperimen dan kelas kontrol memperoleh nilai signifikansi $<0,001$, serta hasil belajar di kelas eksperimen dan kelas kontrol memperoleh nilai signifikansi $<0,001$, menunjukkan bahwa H_0 ditolak dan H_a diterima. Sehingga model *problem based learning* (PBL) berbantu *Liveworksheet* berpengaruh terhadap kemampuan berpikir kritis dan hasil belajar peserta didik serta mampu menghasilkan kemampuan berpikir kritis dan hasil belajar peserta didik lebih baik. Dengan demikian dapat disimpulkan bahwa *Problem Based Learning* (PBL) berpengaruh baik terhadap kemampuan berpikir kritis dan hasil belajar peserta didik pada materi virus di kelas X MAS BPI Baturompe Tahun Ajaran 2025/2026.

Kata Kunci: berpikir kritis; hasil belajar; *liveworksheet*; model pembelajaran; *problem based learning*.

ABSTRACT

ANIS KHAIRUNNISA. 2026. THE EFFECT OF LIVEWORKSHEET-ASSISTED PBL ON STUDENTS' CRITICAL THINKING ABILITIES AND LEARNING OUTCOMES ON VIRUS MATERIAL. (*Experimental Study on Grade X MAS BPI Baturompe Students in the 2025/2026 Academic Year*). Thesis Department of Biology Education, Faculty of Teacher Training and Education, Siliwangi University, Tasikmalaya.

This study aims to determine the effect of the Problem-Based Learning (PBL) model assisted by Liveworksheets on the critical thinking skills and learning outcomes of students regarding the topic of viruses in Grade X at MAS BPI Baturompe during the 2025/2026 academic year. The study was conducted in November 2025 using a quasi-experimental method with a Non-equivalent Control Group Design. The population consisted of all Grade X students, totaling 83 individuals. The sample comprised Class X-1 as the experimental group and Class X-3 as the control group, with 28 students in each class; the sample was selected using a purposive sampling technique. The research instruments included an 11-item essay test to measure critical thinking skills and a 35-item multiple-choice test to assess learning outcomes. Hypothesis testing results showed significance values of <0.001 for both critical thinking skills and learning outcomes in the experimental and control groups, indicating that the null hypothesis H_0 was rejected and the alternative hypothesis H_a was accepted. Thus, the Liveworksheet-assisted Problem-Based Learning (PBL) model influences students' critical thinking skills and learning outcomes, leading to superior performance in these areas. It can be concluded that Problem-Based Learning (PBL) has a positive effect on the critical thinking skills and learning outcomes of Grade X students at MAS BPI Baturompe regarding the topic of viruses during the 2025/2026 academic year.

Keywords: critical thinking; learning outcomes; liveworksheet; learning model; problem-based learning