

Widhy Aulia Anggraini Putri. 2026. *Pengaruh Model PBL Berbantuan Chatbot AI terhadap Literasi Siswa Di Smp*. Skripsi, Program Studi Pendidikan IPA, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunodjoyo Madura. Pembimbing: Badrud Tamam.

ABSTRAK

Literasi sains siswa SMP di Indonesia tergolong rendah, salah satunya dipicu oleh praktik pembelajaran IPA konvensional pada materi abstrak seperti unsur, senyawa, dan campuran. Model *PBL* efektif mengatasi masalah ini, namun implementasinya terkendala oleh keterbatasan waktu dan kurangnya scaffolding bagi siswa. Penelitian ini bertujuan untuk menganalisis keterlaksanaan, pengaruh, dan respon siswa terhadap model *PBL* berbantuan *chatbot* AI. Metode penelitian yang digunakan yaitu kuantitatif eksperimen dengan desain *Quasi Experimental (Nonequivalent Control Group Design)*. Penelitian ini melibatkan siswa kelas VIII SMP Negeri 1 Labang sebagai sampel, dengan kelas eksperimen menerapkan model *PBL* berbantuan *chatbot* AI dan kelas kontrol menerapkan pembelajaran konvensional. Data dikumpulkan melalui tes, angket, lembar observasi, kemudian dianalisis menggunakan uji *Independent Sample t-Test*. Hasil penelitian keterlaksanaan mencapai 100% dengan kategori sangat baik, perbedaan literasi sains siswa antara kelas kontrol dan eksperimen terdapat perbedaan yang signifikan dengan hasil 0,000, selain itu rata-rata angket respon siswa mencapai 80,17%. Dapat disimpulkan bahwa model *PBL* berpengaruh terhadap literasi sains siswa di SMP.

Kata Kunci: *PBL*, *Chatbot* AI, Literasi Sains, Pembelajaran IPA SMP

Widhy Aulia Anggraini Putri. 2026. *The Effect of AI Chatbot-Assisted PBL Model on Junior High School Student Literacy*. Thesis, Science Education Study Program, Faculty of Teacher Training and Education, Trunodjoyo University, Madura. Advisor: Badrud Tamam.

ABSTRACT

The scientific literacy of junior high school students in Indonesia is relatively low, partly due to conventional science learning practices on abstract materials such as elements, compounds, and mixtures. The PBL model effectively addresses this problem, but its implementation is hampered by time constraints and a lack of scaffolding for students. This study aims to analyze the implementation, influence, and student responses to the AI chatbot-assisted PBL model. The research method used was a quantitative experiment with a Quasi-Experimental (Nonequivalent Control Group Design) design. This study involved eighth-grade students of SMP Negeri 1 Labang as samples, with the experimental class implementing the AI chatbot-assisted PBL model and the control class implementing conventional learning. Data were collected through tests, questionnaires, and observation sheets. Then, they were analyzed using the Independent Sample t-Test. The results of the implementation research reached 100% with a very good category, the difference in students' scientific literacy between the control and experimental classes was significant with a result of 0.000, in addition, the average student questionnaire response reached 80.17%. It can be concluded that the PBL model has an effect on students' scientific literacy in junior high schools.

Keywords: *PBL, AI Chatbot, Scientific Literacy, Junior High Science Learning*