

## ABSTRAK

Penelitian mengenai kemampuan literasi sains melalui penerapan dua model pembelajaran bertujuan untuk menganalisis perbandingan kemampuan literasi sains siswa Sekolah Menengah Atas (SMA) pada konsep sistem ekskresi manusia melalui Pembelajaran Berbasis Masalah (PBM) dan Pembelajaran Berbasis Proyek (PBP). Penelitian ini menggunakan metode *pre-experimental* dengan *one group pre-test and post-test design* dan sampel dipilih secara *purposive*. Sampel penelitian sebanyak dua kelas, yaitu kelas XI MIPA 2 menggunakan PBM dan XI MIPA 4 menggunakan PBP, di satu SMA swasta di Kota Bandung. Data diperoleh menggunakan tes tertulis dan respon siswa dalam bentuk angket. Analisis data dilakukan dengan menggunakan uji beda rata-rata antara nilai *post-test* secara umum dan pada setiap indikator literasi sains. Temuan yang diperoleh yaitu tidak terdapat perbedaan yang signifikan ( $\alpha=0,05$ ) pada kemampuan literasi sains siswa, peningkatan kemampuan literasi sains, peningkatan kemampuan dalam mengidentifikasi masalah, dan peningkatan kemampuan menggunakan bukti ilmiah antara kelas yang menerapkan PBM dengan PBP. Sementara itu, terdapat perbedaan yang signifikan ( $\alpha=0,05$ ) pada peningkatan kemampuan menjelaskan fenomena alam antara kelas PBM dengan PBP. Dapat disimpulkan bahwa kedua model pembelajaran tersebut memberikan kontribusi yang sama dalam meningkatkan kemampuan literasi sains siswa yaitu kemampuan mengidentifikasi permasalahan, menjelaskan fenomena alam, dan menggunakan bukti ilmiah.

**Kata Kunci:** Literasi Sains, Ekskresi Manusia, Pembelajaran Masalah, Proyek.

## ABSTRACT

The aimed of research about science literacy skills through the application of two learning model is to analyzed the comparative ability of science literacy ability of Senior High School student on the concept of the human excretory system through the Problem Based Learning (PBL) and Project Based Learning (PjBL). This study used a pre-experimental with one group pre-test and post-test design and samples were selected purposively. There are two classes as the samples, XI MIPA 2 with PBL and XI MIPA 4 with PjBL, at a privat senior high school in Bandung. Data collected by written tests and questionnaire as student's responses. Data analysis was performed using the t'test the average difference between the post-test in general and one any scientific literacy indicators. Based on research, it is known that there were several findings as follows are not a significant difference ( $\alpha=0,05$ ) in the ability of student's scientific literacy, scientific literacy capacity building, an increased ability to identify problems and increase their ability to use scientific evidence between classes the implement PBL and PjBL. Meanwhile, there are significant differences ( $\alpha=0,05$ ) on improving the ability to explain natural phenomena between class PBL and PjBL. It can be concluded that both the model lesson give the same contribution in improving student's ability of science literacy, which is the ability to identify the problem, explain natural phenomena, and use scientific evidence.

**Keywords:** Literacy science, Human Excretion, Learning Problem, Project.

