

ABSTRAK

Annisa Saidah (1212060017) “Pengaruh Model Pembelajaran RICOSRE Berbantu *Lumi Education* Terhadap Kemampuan Literasi Sains Siswa pada Materi Sel”

Literasi sains merupakan kompetensi penting abad ke-21, namun kemampuan literasi sains siswa di Indonesia masih tergolong rendah. Oleh karena itu, diperlukan inovasi pembelajaran yang mampu meningkatkan keterlibatan dan kemampuan berpikir ilmiah siswa. Penelitian ini bertujuan untuk menganalisis pengaruh model pembelajaran RICOSRE berbantu *Lumi Education* terhadap kemampuan literasi sains siswa pada materi sel. Penelitian menggunakan metode *quasi experiment* dengan desain *non-equivalent control group design*, dengan sampel yang dipilih melalui teknik *purposive sampling*. Hasil penelitian menunjukkan bahwa keterlaksanaan pembelajaran pada kelas eksperimen berada pada kategori sangat baik, dengan persentase kinerja guru sebesar 94,8% dan aktivitas siswa sebesar 92,7%. Pada kelas kontrol, persentase kinerja guru sebesar 90,7% dan aktivitas siswa sebesar 88,4%, yang juga berkategori sangat baik. Kemampuan literasi sains siswa pada kelas eksperimen memperoleh nilai *posttest* sebesar 82,17 dengan nilai *N-Gain* 0,65 (kategori sedang) dan tingkat efektivitas cukup efektif. Sementara itu, kelas kontrol memperoleh nilai *posttest* sebesar 70,65 dengan *N-Gain* 0,44 (kategori sedang) dan efektivitas kurang efektif. Uji *Mann-Whitney* menunjukkan nilai signifikansi 0,001 ($< 0,05$), yang menandakan adanya perbedaan signifikan antara kedua kelas. Meskipun demikian, nilai *effect size* sebesar 0,17 menunjukkan bahwa pengaruh penerapan model RICOSRE berbantu *Lumi Education* masih tergolong lemah.

Kata Kunci: Kemampuan Literasi Sains, *Lumi Education*, RICOSRE, Sel

ABSTRACT

Annisa Saidah (1212060017) “*The Effect of the RICOSRE Learning Model Assisted by Lumi Education on Students’ Scientific Literacy Skills on Cell Material*”

Scientific literacy is an essential competence in the 21st century; however, the scientific literacy skills of students in Indonesia remain relatively low. Therefore, innovative learning approaches are needed to enhance student engagement and scientific thinking skills. This study aimed to analyze the effect of the RICOSRE learning model assisted by Lumi Education on students’ scientific literacy skills in cell biology. The study employed a quasi-experimental method with a non-equivalent control group design, and samples were selected using purposive sampling. The results showed that the implementation of learning in the experimental class was categorized as very good, with teacher performance reaching 94.8% and student activity 92.7%. In the control class, teacher performance reached 90.7% and student activity 88.4%, which were also categorized as very good. Students’ scientific literacy skills in the experimental class achieved a posttest score of 82.17 with an N-Gain value of 0.65 (moderate category) and a “fairly effective” level of effectiveness. Meanwhile, the control class obtained a posttest score of 70.65 with an N-Gain value of 0.44 (moderate category) and a “less effective” level. The Mann–Whitney test yielded a significance value of 0.001 (< 0.05), indicating a significant difference between the experimental and control classes. Nevertheless, the effect size value of 0.17 indicates that the effect of the RICOSRE learning model assisted by Lumi Education on students’ scientific literacy skills remains weak.

Keywords: *Cells, Lumi Education, RICOSRE, Scientific Literacy Skills.*