

ABSTRAK

Sheila Sutarsana. 2025. **PENGARUH MODEL PEMBELAJARAN *INQUIRY BY LEARNING CYCLE* (RYLEAC) BERBANTUAN *MIND MAPPING* TERHADAP HASIL BELAJAR PESERTA DIDIK PADA MATERI ENERGI ALTERNATIF**

Penelitian ini dilatarbelakangi oleh studi pendahuluan di X SMAN 4 Tasikmalaya yang menunjukkan bahwa rata-rata pencapaian hasil belajar kognitif peserta didik berada pada nilai 38,78, yang termasuk dalam kategori sangat rendah. Penelitian ini bertujuan untuk mengetahui apakah terdapat pengaruh model pembelajaran *Inquiry by Learning Cycle* (Ryleac) berbantuan *mind mapping* terhadap hasil belajar kognitif peserta didik pada materi energi alternatif di kelas X SMAN 4 Tasikmalaya tahun ajaran 2024/2025. Penelitian ini menggunakan metode *quasi experiment* dengan desain *posttest only control group design*. Penentuan sampel penelitian dilakukan melalui teknik *purposive sampling*, dengan X-1 sebagai kelas eksperimen dan X-4 sebagai kelas kontrol. Pengaruh hasil belajar kognitif diukur menggunakan *posttest*, serta lembar keterlaksanaan model pembelajaran Ryleac. Hasil belajar kognitif peserta didik diukur dengan empat soal uraian tentang materi energi alternatif. Hasil uji hipotesis menggunakan uji-t pada taraf signifikansi ($\alpha = 0,05$) menunjukkan bahwa $t_{hitung} > t_{tabel}$ yang artinya H_0 ditolak dan H_a diterima. Dengan demikian, pada tingkat kepercayaan 95% terdapat pengaruh penggunaan model pembelajaran Ryleac terhadap hasil belajar kognitif peserta didik pada materi energi alternatif di kelas X SMAN 4 Tasikmalaya tahun ajaran 2024/2025. Efektivitas model Ryleac diperkuat dengan bantuan *mind mapping* yang membantu peserta didik memahami materi lebih mendalam.

Kata kunci: Energi Alternatif, Hasil Belajar Kognitif, *Mind Mapping*, Model Pembelajaran Ryleac.

ABSTRACT

Sheila Sutarsana. 2025. THE EFFECT OF THE INQUIRY BY LEARNING CYCLE (RYLEAC) LEARNING MODEL ASSISTED BY MIND MAPPING ON STUDENTS' LEARNING OUTCOMES IN ALTERNATIVE ENERGY MATERIAL

This research is motivated by a preliminary study at X SMAN 4 Tasikmalaya which showed that the average achievement of students' cognitive learning outcomes was at 38.78, which is included in the very low category. This study aims to determine whether there is an effect of the Inquiry by Learning Cycle (Ryleac) learning model assisted by mind mapping on students' cognitive learning outcomes on alternative energy material in class X SMAN 4 Tasikmalaya in the 2024/2025 academic year. This study used a quasi-experimental method with a posttest only control group design. The determination of the research sample was carried out through a purposive sampling technique, with X-1 as the experimental class and X-4 as the control class. The effect of cognitive learning outcomes was measured using a posttest, as well as the Ryleac learning model implementation sheet. Students' cognitive learning outcomes were measured with four essay questions on alternative energy material. The results of the hypothesis test using the t-test at the significance level ($\alpha = 0.05$) show that $t_{hitung} > t_{tabel}$ which means that H_0 is rejected and H_1 is accepted. Thus, at a 95% confidence level there is an effect of using the Ryleac learning model on students' cognitive learning outcomes on alternative energy material in class X of SMAN 4 Tasikmalaya in the 2024/2025 academic year. The effectiveness of the Ryleac model is strengthened by the in-depth assistance of mind mapping which helps students understand the material more deeply.

Keywords: Alternative Energy, Cognitive Learning Outcomes, Mind Mapping, Ryleac Learning Model.