

ABSTRAK

Naziratul Husna: Pengaruh Model *Inquiry Based Learning* Terhadap Hasil Belajar Kognitif dan Keterampilan Komunikasi Siswa Pada Materi Koloid. **Program Studi Pendidikan Kimia FKIP Universitas Malikussaleh, 2025.**

Penelitian ini bertujuan untuk mengetahui pengaruh model *inquiry based learning* terhadap hasil belajar kognitif dan keterampilan komunikasi siswa pada materi koloid. Penelitian ini dilaksanakan di SMA Negeri 2 Bireuen pada semester genap tahun 2024/2025.

Jenis penelitian yang digunakan *Pre Eksperimental Designt*, dengan desain *Intact-Group Comparison*. Desain ini digunakan untuk membagi dua kelas tanpa randomisasi. Populasi dalam penelitian ini seluruh siswa kelas XI SMA Negeri 2 Bireuen sedangkan sampel terdiri dari dua kelas yaitu XI Merdeka-1 sebagai kelas eksperimen dan XI Merdeka-2 sebagai kelas kontrol, masing-masing berjumlah 36 siswa. Data dikumpulkan melalui soal pilihan ganda yang telah di validasi dan lembar observasi yang diberikan sesudah adanya perlakuan pembelajaran terhadap dua kelas. Teknik analisis data meliputi uji normalitas (*Shapiro Wilk*), homogenitas (*Levene test*) dan uji hipotesis (*independent sample t-test*) untuk data kemampuan hasil belajar kognitif dan keterampilan komunikasi siswa.

Hasil penelitian menunjukkan bahwa data hasil uji-t pada tes kemampuan hasil belajar kognitif siswa terdapat nilai sig. (*2-tailed*) $0,017 < 0,05$. Pengujian hasil uji-t keterampilan komunikasi siswa diperoleh nilai sig. (*2-tailed*) $0,003 < 0,05$. Hal ini menunjukkan bahwa H_0 ditolak dan H_a diterima. Kesimpulannya yaitu terdapat pengaruh model *inquiry based learning* terhadap hasil belajar kognitif dan keterampilan komunikasi siswa kelas XI SMAN 2 Bireuen pada materi koloid. Diharapkan kepada peneliti selanjutnya memperhatikan alokasi waktu jika ingin menerapkan model *inquiry based learning*, dikarenakan model ini membutuhkan waktu pembelajaran yang cukup lama. Maka diharapkan kepada pendidik agar dapat menyesuaikan waktu dengan materi.

Kata Kunci: *Inquiry based learning*, hasil belajar kognitif, keterampilan komunikasi, Koloid

ABSTRACT

Naziratul Husna: The Effect of an *Inquiry Based Learning* Model on Cognitive Learning Outcomes and Communication Skills in Colloid Material. **Chemistry Education Study Programe, FKIP, Malikussaleh University, 2025.**

This study aims to investigate the effect of the *inquiry based learning* model on students' cognitive learning outcomes and communication skills in colloids. The study was conducted at SMA Negeri 2 Bireuen on colloid material during the second semester of the 2024/2025 academic year.

This study uses a quantitative approach. The type of research used is a *Pre Experimental Design*, with an *Intact-Group Comparison design*. The population in this study was all 11th-grade students of SMA Negeri 2 Bireuen, while the sample consisted of two classes, class XI Merdeka-1 as the experimental class consisting of 36 students and class XI Merdeka-2 as the control class consisting of 36 students and class XI Merdeka-2 as the control class with 36 students. The data collection instruments in this study were validated multiple-choice tests and adapted observation sheets administered after the learning treatment of the two classes. Data analysis techniques were conducting normality tests using *Shapiro-Wilk*, homogeneity tests using the *Levene test* and hypothesis testing using *independent sample t-test* for data on students' cognitive learning outcomes and communication skills.

The results of the study indicate that the t-test data on the students' cognitive learning test show a sig. (2-tailed) value of $0,017 < 0,05$. The t-test results for students' communication skills show a sig. (2-tailed) value of $0,003 < 0,05$. This indicates that H_0 is rejected and H_a is accepted. The conclusion is that there is an effect of the *inquiry based learning* model on the cognitive learning outcomes and communication skills of 11th-grade students of SMAN 2 Bireuen on colloid material. It is hoped that future researchers will pay attention to time allocation if they wish to apply the *inquiry based learning* model, as this model requires a considerable amount of learning time. Therefore, it is hoped that educators will be able to adjust the time to the material.

Keywords: *Inquiry based learning*, Cognitive Learning Outcomes, Communication, Colloid