

## ABSTRAK

### **Debora Putri Sitorus, NIM 4203131033 (2024). Analisis Kemampuan Literasi Sains Siswa Dalam Menyelesaikan Soal Kimia Berbasis HOTS.**

Kemampuan literasi sains pada siswa berdasarkan PISA 2021 tergolong rendah, selain itu siswa belum terbiasa dalam menyelesaikan soal-soal literasi sains kimia berbasis HOTS terkhusus pada aspek konten, konteks dan kompetensi sains. Penelitian ini bertujuan untuk menganalisis distribusi kemampuan literasi sains siswa pada aspek konten, konteks dan kompetensi. Instrumen yang digunakan adalah tes pilihan berganda beralasan dan esai sebanyak 18 soal yang sudah divalidasi ahli materi dan siswa. Instrumen terdiri dari aspek konten, konteks dan kompetensi. Penelitian ini dilaksanakan di SMA Negeri 2 Percut Sei Tuan yang beralamat di Jalan Pendidikan, Kelurahan Bandar Klippa, Kecamatan Percut Sei Tuan, Kabupaten Deli Serdang pada bulan Maret hingga Mei tahun ajaran 2023/2024. Jenis penelitian yang digunakan adalah deskriptif kuantitatif dengan sampel seluruh siswa kelas XI IPA SMA Negeri 2 Percut Sei Tuan tahun ajaran 2023/2024. Hasil analisis data menunjukkan bahwa distribusi kemampuan literasi sains siswa pada aspek konten sebesar 71,33% pada domain konten tergolong kategori sedang; domain prosedural sebesar 57,11% dan domain epistemik sebesar 56,99% tergolong kategori rendah. Distribusi pada aspek konteks domain kesehatan sebesar 66,08% tergolong kategori sedang; domain sumber daya alam sebesar 48,25% dan domain lingkungan sebesar 42,66% tergolong kategori sangat rendah. Dan distribusi pada aspek kompetensi domain menjelaskan fenomena ilmiah sebesar 55,13% tergolong kategori rendah; domain mengevaluasi dan mendesain penyelidikan sebesar 44,64% dan domain interpretasikan data dan bukti secara ilmiah sebesar 46,68% tergolong kategori sangat rendah.

**Kata kunci** : Literasi Sains, HOTS, Konten, Konteks, Kompetensi

## ABSTRACT

### **Debora Putri Sitorus, NIM 4203131033 (2024). Analysis of Students Scientific Literacy Ability in Solving HOTS-Based Chemistry Questions.**

The scientific literacy ability of students based on PISA 2021 is relatively low, in addition, students are not yet accustomed to solving HOTS-based chemical science literacy questions, especially in the aspects of content, context and science competency. This study aims to analyze the distribution of students' scientific literacy abilities in the aspects of content, context and competency. The instrument used was a multiple-choice test with reasoning and essays totaling 18 questions that had been validated by material experts and students. The instrument consists of aspects of content, context and competency. This research was conducted at SMA Negeri 2 Percut Sei Tuan located at Jalan Pendidikan, Bandar Klippa Village, Percut Sei Tuan District, Deli Serdang Regency from March to May of the 2023/2024 academic year. The type of research used was descriptive quantitative with a sample of all class XI IPA students of SMA Negeri 2 Percut Sei Tuan in the 2023/2024 academic year. The results of data analysis showed that the distribution of students' scientific literacy abilities in the content aspect was 71.33% in the content domain, which was classified as moderate; procedural domain of 57.11% and epistemic domain of 56.99% are categorized as low. Distribution on the aspect of health domain context of 66.08% is categorized as medium; natural resource domain of 48.25% and environmental domain of 42.66% are categorized as very low. And distribution on the aspect of domain competence explaining scientific phenomena of 55.13% is categorized as low; domain of evaluating and designing investigations of 44.64% and domain of interpreting data and evidence scientifically of 46.68% are categorized as very low.

**Keywords :** Scientific Literacy, HOTS, Content, Context, Competency