

ABSTRAK

Filadelfiansi Dawolo, NIM 4222431009 (2026). Model *Learning Cycle 5E* Berbantuan Media *Powtoon* terhadap HOTS (*Higher Order Thinking Skills*) Literasi Siswa pada Materi Laju Reaksi.

Salah satu permasalahan dalam pembelajaran sains di tingkat SMA adalah masih rendahnya kemampuan literasi sains berbasis *Higher Order Thinking Skills* (HOTS) peserta didik, khususnya pada aspek analisis (C4), evaluasi (C5), dan kreasi (C6). Penelitian ini bertujuan untuk menganalisis peningkatan HOTS literasi siswa melalui penerapan model *Learning Cycle 5E* berbantuan media *Powtoon* pada materi Laju Reaksi di kelas XI SMA Negeri 2 Medan serta mendeskripsikan aspek HOTS literasi yang paling berkembang. Penelitian ini menggunakan pendekatan kuantitatif dengan desain pra-eksperimental tipe one-group pretest-posttest terhadap 36 siswa. Hasil penelitian menunjukkan bahwa rata-rata skor pretest sebesar 34,22 meningkat menjadi 85,22 pada posttest dengan nilai N-gain sebesar 0,78 (kategori tinggi). Hasil uji-t menunjukkan adanya peningkatan yang signifikan secara statistik. Persentase ketercapaian indikator HOTS literasi menunjukkan bahwa aspek analisis (C4) memperoleh 77,27%, evaluasi (C5) sebesar 74,87%, dan kreasi (C6) sebesar 50%. Temuan ini mengindikasikan bahwa penerapan model *Learning Cycle 5E* berbantuan media *Powtoon* berpotensi meningkatkan HOTS literasi siswa, terutama pada kemampuan analisis dan evaluasi.

Kata Kunci: *Learning Cycle 5E*, HOTS Literasi, media *Powtoon*, Laju Reaksi

ABSTRACT

Filadelfiansi Dawolo, NIM 4222431009 (2026). *The Effect of the Learning Cycle 5E Model Assisted by Powtoon Media on Students' HOTS Literacy in Reaction Rate Material.*

One of the major issues in science learning at the senior high school level is the low level of students' science literacy based on Higher Order Thinking Skills (HOTS), particularly in the aspects of analysis (C4), evaluation (C5), and creation (C6). This study aims to analyze the improvement of students' HOTS literacy through the implementation of the *Learning Cycle 5E* model assisted by *Powtoon* media on the topic of Reaction Rate in Grade XI at SMA Negeri 2 Medan, as well as to describe which HOTS literacy aspects developed the most. This research employed a quantitative approach using a pre-experimental design of the one-group pretest-posttest type involving 36 students. The results showed that the average pretest score of 34.22 increased to 85.22 in the posttest, with an N-gain value of 0.78 (high category). The hypothesis testing indicated a statistically significant improvement. The percentage of HOTS literacy achievement for each indicator revealed that the analysis aspect (C4) reached 77.27%, evaluation (C5) reached 74.87%, and creation (C6) reached 50%. These findings indicate that the implementation of the *Learning Cycle 5E* model assisted by *Powtoon* media has the potential to enhance students' HOTS literacy, particularly in analytical and evaluative skills.

Keywords: *Learning Cycle 5E*, HOTS Literacy, *Powtoon* Media, Reaction Rate