

ABSTRAK

Harmon: **Pengaruh Pengembangan Modul Ajar Inovatif berbasis *Guided Inquiry* dan Motivasi terhadap *Higher Order Thinking Skills (HOTS) Literacy* Siswa pada Materi Stoikiometri.** Tesis. Medan: Program Studi Pendidikan Kimia, Pascasarjana Universitas Negeri Medan, 2022.

Penelitian ini bertujuan untuk mengembangkan modul ajar inovatif berbasis *guided inquiry* yang dapat meningkatkan kemampuan *higher order thinking skills (HOTS) literacy* siswa pada materi stoikiometri, melihat perbedaan pengaruh rata-rata motivasi tinggi dan rendah terhadap *HOTS literacy*, mengetahui interaksi antara modul ajar inovatif berbasis *guided inquiry* dan motivasi terhadap *HOTS literacy* serta melihat respon siswa terhadap modul yang dikembangkan. Penelitian ini menggunakan pendekatan ADDIE (*Analysis, Design, Development, Implementation, and Evaluation*). Sampel penelitian ini berjumlah 60 siswa SMA Negeri 1 Simpang Kanan, Kabupaten Aceh Singkil jurusan Matematika dan Ilmu Pengetahuan Alam (MIPA). Instrumen tes yang dianalisis menggunakan teknik analisis data statistik deskriptif dan uji statistik two way ANOVA. Hasil penelitian diperoleh bahwa modul ajar inovatif berbasis *guided inquiry* yang dikembangkan telah layak sesuai BSNP dengan rata-rata uji kelayakan dari ahli materi dan bahan ajar sebesar 3,63 dalam skala 4,00. Hasil uji *two way* ANOVA modul ajar yang diterapkan memberikan pengaruh terhadap kemampuan *HOTS literacy* siswa yang ditunjukkan oleh nilai $F_{hitung} > F_{tabel}$ yaitu $9,179 > 3,15$ pada signifikansi 0,05 artinya H_a diterima dan H_o ditolak. Tingkat motivasi belajar memberikan pengaruh dengan nilai $F_{hitung} > F_{tabel}$ yaitu $8,993 > 3,15$ pada signifikansi 0,05 artinya H_a diterima dan H_o ditolak. Modul ajar yang diterapkan memberikan interaksi dengan tingkat motivasi belajar dalam mempengaruhi kemampuan *HOTS literacy* siswa yang ditunjukkan oleh nilai $F_{hitung} > F_{tabel}$ yaitu $3,585 > 3,15$ pada signifikansi 0,05 artinya H_a diterima dan H_o ditolak. Respon siswa terhadap penggunaan modul ajar sangat baik dengan nilai rata-rata persentase jawaban siswa sebesar 91%.

Kata Kunci: Modul Ajar, *Guided Inquiry*, *HOTS Literacy*, *Two Way Anova*.

ABSTRACT

Harmon: **The Effect of Guided Inquiry-based Innovative Teaching Module Development and Motivation on Students' Higher Order Thinking Skills (HOTS) Literacy in Stoichiometry.** Thesis. Medan: Chemistry Education Study Program, Postgraduate Program, State University of Medan, 2022.

This study aims to develop an innovative teaching module based on guided inquiry that can improve students' higher order thinking skills (HOTS) literacy on stoichiometry material, see the difference in the average effect of high and low motivation on HOTS literacy, determine the interaction between innovative teaching modules based on guided inquiry and motivation on HOTS literacy and see students' responses to the developed module. This research uses the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) approach. The sample of this study amounted to 60 students of SMA Negeri 1 Simpang Kanan, Aceh Singkil Regency majoring in Mathematics and Natural Sciences (MIPA). The test instruments were analyzed using descriptive statistical data analysis techniques and two-way ANOVA statistical tests. The results showed that the innovative teaching module based on guided inquiry developed was feasible according to BSNP with an average feasibility test from material experts and teaching materials of 3.63 on a 4.00 scale. The results of the two-way ANOVA test of the teaching module applied have an influence on students' HOTS literacy skills as indicated by the value of $F_{\text{observe}} > F_{\text{critical}}$, namely $9.179 > 3.15$ at a significance of 0.05, meaning that H_a is accepted and H_o is rejected. The level of learning motivation has an influence with an $F_{\text{observe}} > F_{\text{critical}}$ value of $8.993 > 3.15$ at a significance of 0.05, meaning that H_a is accepted and H_o is rejected. The teaching module applied provides interaction with the level of learning motivation in influencing students' HOTS literacy skills as indicated by the value of $F_{\text{observe}} > F_{\text{critical}}$, namely $3.585 > 3.15$ at a significance of 0.05, meaning that H_a is accepted and H_o is rejected. Student response to the use of teaching modules is very good with an average percentage value of student answers of 91%.

Keywords: *Teaching Module, Guided Inquiry, HOTS Literacy, Two Way Anova.*