

ABSTRAK

EFEKTIVITAS MODEL PEMBELAJARAN INKUIRI TERBIMBING BERBASIS *GREEN CHEMISTRY* UNTUK MENINGKATKAN PENGUASAAN KOMPETENSI PEMBELAJARAN TERMOKIMIA DAN SIKAP SISWA SMA

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Penelitian ini bertujuan untuk mendeskripsikan efektivitas model pembelajaran inkuiri terbimbing berbasis *green chemistry* untuk meningkatkan penguasaan kompetensi pembelajaran termokimia dan sikap siswa SMA. Metode penelitian yang digunakan adalah kuasi eksperimen dengan desain *pretest-posttest control group*. Populasi dalam penelitian ini adalah seluruh siswa kelas XI SMA Negeri 15 Bandar Lampung Tahun Ajaran 2024/2025. Sampel penelitian adalah kelas XI F-1 dan XI F-2 yang dipilih melalui teknik *purposive sampling*, kemudian dilakukan pengundian sehingga kelas XI F-1 ditetapkan sebagai kelas kontrol dan kelas XI F-2 sebagai kelas eksperimen. Instrumen penelitian yang digunakan berupa pretes postes penguasaan kompetensi pembelajaran termokimia, angket sikap terhadap pelajaran kimia, asesmen kinerja produk berpikir dari pengisian LKPD, angket respon siswa dan lembar keterlaksanaan model pembelajaran. Analisis data meliputi perhitungan *n-gain* rata-rata, angket sikap, kinerja produk berpikir, angket respon dan lembar keterlaksanaan model pembelajaran. Pengujian hipotesis dilakukan dengan uji perbedaan dua rata-rata. Hasil penelitian menunjukkan bahwa *n-gain* rata-rata penguasaan kompetensi pembelajaran termokimia kelas eksperimen sebesar 0,44 berkategori sedang dan persentase sikap terhadap pelajaran kimia sebesar 81% berkategori sangat baik. Dapat disimpulkan bahwa model pembelajaran inkuiri terbimbing berbasis *green chemistry* efektif dalam meningkatkan penguasaan kompetensi pembelajaran termokimia dan sikap siswa terhadap pelajaran kimia.

Kata kunci: inkuiri terbimbing, *green chemistry*, termokimia, penguasaan kompetensi, sikap terhadap pelajaran kimia

ABSTRACT

THE EFFECTIVENESS OF THE GUIDED INQUIRY LEARNING MODEL BASED ON GREEN CHEMISTRY TO IMPROVE THE MASTERY OF THERMOCHEMISTRY LEARNING COMPETENCIES AND ATTITUDES OF HIGH SCHOOL STUDENTS

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This study aims to describe the effectiveness of guided inquiry learning model based on green chemistry to improve the mastery of thermochemistry learning competencies and attitudes of high school students. The research method used is quasi-experimental with pretest-posttest control group design. The population in this study were all students of class XI of SMA Negeri 15 Bandar Lampung in the 2024/2025 Academic Year. The research sample was class XI F-1 and XI F-2 which were selected through purposive sampling technique, then a lottery was conducted so that class XI F-1 was determined as the control class and class XI F-2 as the experimental class. The research instruments used were pretest-posttest of mastery of thermochemistry learning competencies, attitude questionnaires towards chemistry lessons, assessment of thinking product performance from filling out LKPD, student response questionnaires and learning model implementation sheets. Data analysis includes the calculation of the average n-gain, attitude questionnaires, thinking product performance, response questionnaires and learning model implementation sheets. Hypothesis testing was carried out by testing the difference between two means. The results of the study showed that the average n-gain of the mastery of thermochemistry learning competencies in the experimental class was 0.44 in the moderate category and the percentage of attitudes towards chemistry lessons was 81% in the very good category. It can be concluded that the guided inquiry learning model based on green chemistry is effective in improving students' mastery of thermochemistry learning competencies and attitudes towards chemistry lessons.

Keywords: guided inquiry, *green chemistry*, thermochemistry, competency mastery, attitude towards chemistry lessons