

## ABSTRAK

**Rizka Annisa Rahman, NIM 4173331041 (2021). Pengembangan Modul Elektronik Berbasis *Problem Based Learning* (PBL) Pada Materi Termokimia Menggunakan Aplikasi *Kvisoft Flipbook Maker*.**

Penelitian ini bertujuan untuk mengembangkan dan mengetahui kelayakan Modul Elektronik Berbasis *Problem Based Learning* (PBL) pada Materi Termokimia Menggunakan Aplikasi *Kvisoft Flipbook Maker*. Metoda dalam penelitian ini menggunakan prosedur penelitian dan pengembangan *Research and Development* (R&D) dengan menggunakan model 4D yang terdiri dari beberapa tahapan yaitu analysis (*Define*), design (*Design*), development (*Development*), dan implementasi (*Disseminate*). Instrumen yang digunakan dalam penelitian ini adalah lembar validasi standar BSNP yang telah dimodifikasi sesuai dengan kebutuhan pengembangan modul dan angket respon siswa. Validasi dilakukan oleh ahli materi, ahli media, dan guru mata pelajaran kimia di SMA Negeri 11 Medan. Media yang dikembangkan diujicobakan pada 20 siswa kelas XI IPA 5. Berdasarkan hasil validasi yang diperoleh dari validator dosen ahli materi dan guru mata pelajaran kimia diperoleh hasil rata-rata 88,71% yang memenuhi kriteria “sangat layak”, dan dari ahli media. Diperoleh hasil rata-rata sebesar 90,75% yang memenuhi kriteria “sangat layak. Respon siswa terhadap media ini saat uji coba dilaksanakan diperoleh nilai rata-rata 92,21% dengan kriteria “sangat setuju” sehingga secara keseluruhan media pembelajaran Modul Elektronik Berbasis *Problem Based Learning* (PBL) pada Materi Termokimia Menggunakan aplikasi *Kvisoft Flipbook Maker* layak digunakan sebagai media pembelajaran

**Kata Kunci:** Pengembangan, Modul Elektronik, *Problem Based Learning* (PBL), *Kvisoft Flipbook Maker*, Termokimia

## ABSTRACT

**Rizka Annisa Rahman, NIM 4173331041 (2021). *Development of Electronic Module Based on Problem Based Learning (PBL) on Thermochemical Material Using the Kvisoft Flipbook Maker Application.***

*This study aims to develop and determine the feasibility of an Electronic Module Based on Problem Based Learning (PBL) on Thermochemical Materials Using the Kvisoft Flipbook Maker Application. The method in this research uses the Research and Development (R & D) research and development procedure using the 4D model which consists of several stages, namely analysis (Define), design (Design), development (Development), and implementation (Disseminate). The instrument used in this study was the BSNP standard validation sheet that was modified according to the needs of module development and student response questionnaires. Validation was carried out by material experts, media experts, and chemistry subject teachers at SMA Negeri 11 Medan. The developed media was tried out on 20 students of class XI IPA 5. Based on the validation results obtained from the validator, the material expert lecturer and the chemistry subject teacher, the average result was 88.71% which met the criteria of "very feasible", and from media experts. Obtained an average result of 90.75% which meet the criteria "very feasible. Student responses to this media when the trial was carried out obtained an average value of 92.21% with the criteria "strongly agree" so that overall the learning media for the Electronic Module Based on Problem Based Learning (PBL) on Thermochemical Materials Using the Kvisoft Flipbook Maker application is feasible to use as a learning medium.*

**Keywords:** *Development, Electronic Modules, Problem Based Learning (PBL), Kvisoft Flipbook Maker, Thermochemistry*