

ABSTRAK

Dahniar Natalia Sipayung, NIM 4203131030 (2024). Pengembangan E-Modul Pembelajaran Berbasis *Chemo-Edutainment* Pada Pokok Bahasan Sistem Periodik Unsur

Penelitian ini bertujuan untuk mengetahui: (1) kelayakan *e-modul* pembelajaran berbasis *chemo-edutainment* yang telah dikembangkan sesuai dengan standar BSNP yaitu kelayakan isi, kelayakan penyajian, kelayakan bahasa dan kelayakan kegrafikan; (2) praktikalitas *e-modul* pembelajaran berbasis *chemo-edutainment* pada pokok bahasan Sistem Periodik Unsur yang telah dikembangkan melalui respon guru kimia dan peserta didik. Penelitian ini dikembangkan dengan menggunakan metode *Research & Development (R&D)* dengan menggunakan model pengembangan 4D (*define, design, develop and disseminate*) dibatasi sampai tahap *develop*. Tahap awal yang dilakukan yaitu menganalisis kebutuhan awal dengan cara melakukan wawancara kepada guru kimia kelas X dan menyebarkan angket kebutuhan bahan ajar kepada peserta didik, menganalisis Alur Tujuan Pembelajaran, dan menganalisis bahan ajar serta materi sistem periodik unsur. Kemudian dilakukan perancangan dan pembuatan *e-modul* pembelajaran berbasis *chemo-edutainment* pada pokok bahasan sistem periodik unsur. Selanjutnya produk akhir berupa *e-modul* dalam bentuk *flipbook* berbantuan *Flip PDF Professional* dilakukan uji validasi kelayakannya oleh 6 validator diantaranya 4 dosen kimia Universitas Negeri Medan dan 2 Guru Kimia SMA N 1 Percut Sei Tuan. Setelah diperoleh penilaian dan dilaukan tahap revisi sesuai saran validator selanjutnya dilakukan uji praktikalitas oleh 2 guru kimia dan 31 peserta didik. Hasil persentase kelayakan *e-modul* yang diperoleh pada penelitian ini pada aspek kelayakan isi sebesar 93%, kelayakan penyajian sebesar 95%, kelayakan bahasa sebesar 95%, dan kelayakan kegrafikan sebesar 84% keempat aspek ini mencapai kriteria “sangat layak”. Hasil uji praktikalitas yang melalui respon guru kimia mendapatkan hasil sebesar 97% dengan kriteria “sangat praktis” dan respon peserta didik mendapatkan hasil sebesar 97% dengan kriteria “sangat praktis”.

Kata Kunci: Pengembangan, *E-modul*, *Chemo-Edutainment*, dan Sistem Periodik Unsur

ABSTRACT

Dahniar Natalia Sipayung, NIM 4203131030 (2024). *Development of Chemo-Edutainment-Based Learning E-Modules on the Subject of the Periodic System of Elements*

This study aims to find out: (1) the feasibility of chemo-edutainment-based learning e-modules that have been developed in accordance with BSNP standards, namely content feasibility, presentation feasibility, language feasibility and graphic feasibility; (2) practicality of chemo-edutainment-based learning e-modules on the subject of the Periodic System of Elements that have been developed through the responses of chemistry teachers and learners. This research was developed using the Research & Development (R&D) method using a 4D development model (define, design, develop and disseminate) limited to the development stage. The initial stage carried out is to analyze the initial needs by conducting interviews with class X chemistry teachers and distributing questionnaires of teaching material needs to students, analyzing the Learning Objectives Flow, and analyzing teaching materials and periodic system of elements materials. Then the design and manufacture of chemo-edutainment-based learning e-modules on the subject of the periodic system of elements were carried out. Furthermore, the final product in the form of an e-module in the form of a flipbook assisted by Flip PDF Professional was tested for feasibility validation by 6 validators including 4 chemistry lecturers at Medan State University and 2 Chemistry Teachers of SMA N 1 Percut Sei Tuan. After obtaining the assessment and carrying out the revision stage according to the validator's suggestion, then a practicality test was carried out by 2 chemistry teachers and 31 students. The results of the e-module feasibility percentage obtained in this study on the aspects of content feasibility of 93%, presentation feasibility of 95%, language feasibility of 95%, and graphic feasibility of 84% these four aspects achieved the criteria of "very feasible". The results of the practicality test through the response of the chemistry teacher got results of 97% with the criteria of "very practical" and the response of students got results of 97% with the criteria of "very practical".

Keywords: *Development, E-module, Chemo-Edutainment, and Periodic System of Elements*