ABSTRAK

Prahmawati Pujiyanti Kusuma Dewi. 2026. Pengembangan Modul Bermuatan *Higher Order Thinking Skills* (HOTS) Untuk Materi Perubahan Lingkungan SMA Kelas X Berbasis Kearifan Lokal Madiun.. Skripsi. Program Studi Pendidikan Biologi, FKIP, Universitas PGRI Madiun. Pembimbing (I) Sri Utami, S.Pd., M.Pd., (II) Dr.drh.C. Novi Primiani M.Pd

Modul pembelajaran memiliki peran penting dalam mendukung proses belajar di sekolah karena tidak hanya menjadi sumber informasi, tetapi juga membantu siswa memahami materi, meningkatkan motivasi, serta mengembangkan kemampuan berpikir. Penelitian ini bertujuan untuk: (1) mengembangkan modul bermuatan *Higher Order Thinking Skills* (HOTS) pada materi Perubahan Lingkungan kelas X SMA berbasis kearifan lokal Madiun, (2) mengetahui tingkat validitas modul yang dikembangkan, dan (3) mengetahui efektivitas modul berdasarkan hasil belajar peserta didik dan respons pengguna. Penelitian ini menggunakan metode *Research and Development* (R&D) dengan model ADDIE yang meliputi tahap *Analysis, Design, Development, Implementation,* dan *Evaluation*. Subjek penelitian terdiri atas dua validator ahli (ahli media dan ahli materi), satu guru Biologi, serta 35 peserta didik kelas X SMA Negeri 6 Madiun. Teknik pengumpulan data meliputi wawancara, dokumentasi, angket validasi, angket efektivitas, serta *pretest* dan *posttest*. Data dianalisis secara deskriptif kuantitatif menggunakan persentase kelayakan dan nilai N-gain. Hasil penelitian menunjukkan bahwa modul yang dikembangkan memperoleh nilai validitas ahli media sebesar 86,5% dengan kategori sangat valid, sedangkan validitas ahli materi memperoleh nilai 90% dengan kategori sangat valid, sehingga modul layak digunakan dengan revisi kecil. Hasil implementasi menunjukkan rata-rata nilai N-gain sebesar 0,60 (59,76%) yang termasuk kategori sedang, sehingga modul mampu meningkatkan hasil belajar peserta didik. Hasil angket efektivitas menunjukkan 60% peserta didik memberikan respons efektif, 34% memberikan respons sangat efektif, 6% memberikan respons kurang efektif, dan tidak ada peserta didik yang memberikan respons tidak efektif. Kesimpulannya modul bermuatan HOTS berbasis kearifan lokal Madiun dinyatakan valid, efektif, dan layak digunakan sebagai bahan ajar pada materi Perubahan Lingkungan kelas X SMA.

Kata kunci: modul,HOTS,Kearifan Lokal Madiun,Perubahan Lingkungan,ADDIE

ABSTRACT

Prahmawati Pujiyanti Kusuma Dewi. 2026. Development of a Module Incorporating Higher-Order Thinking Skills (HOTS) on Environmental Change for Grade X High School Students, Based on Madiun Local Wisdom. Undergraduate Thesis. Biology Education Study Program, Faculty of Teacher Training and Education (FKIP), Universitas PGRI Madiun. Supervisor. (I) Sri Utami, S.Pd., M.Pd., (II) Dr.drh.C. Novi Primiani M.Pd

Learning modules have an important role in supporting the learning process in schools because they are not only a source of information, but also help students understand the material, increase motivation, and develop thinking skills. This study aims to: (1) develop a module containing Higher Order Thinking Skills (HOTS) on Environmental Change material for grade X SMA based on Madiun local wisdom, (2) determine the level of validity of the developed module, and (3) determine the effectiveness of the module based on student learning outcomes and user responses. This study uses the Research and Development (R&D) method with the ADDIE model which includes the stages of Analysis, Design, Development, Implementation, and Evaluation. The research subjects consisted of two expert validators (media experts and material experts), one Biology teacher, and 35 grade X students of SMA Negeri 6 Madiun. Data collection techniques include interviews, documentation, validation questionnaires, effectiveness questionnaires, and pretests and posttests. Data were analyzed descriptively quantitatively using the feasibility percentage and N-gain value. The results of the study showed that the developed module obtained a media expert validity value of 86.5% with a very valid category, while the material expert validity obtained a value of 90% with a very valid category, so the module is suitable for use with minor revisions. The implementation results showed an average N-gain value of 0.60 (59.76%) which is included in the moderate category, so the module is able to improve student learning outcomes. The results of the effectiveness questionnaire showed that 60% of students gave effective responses, 34% gave very effective responses, 6% gave less effective responses, and no students gave ineffective responses. In conclusion, the HOTS-based module based on Madiun local wisdom was declared valid, effective, and suitable for use as teaching materials on Environmental Change material for grade X of high school.

Keywords: module, HOTS, Madiun Local Wisdom, Environmental Change, ADDIE