PENGEMBANGAN MEDIA PEMBELAJARAN INTERAKTIF BERBASIS *COLLABORATIVE AND INQUIRY PROBLEM BASED LEARNING* (CIPBL) PADA MATERI PERUBAHAN LINGKUNGAN UNTUK MENDUKUNG PEMBELAJARAN MENDALAM

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ABSTRAK

Pembelajaran Biologi pada materi perubahan lingkungan di SMA Negeri 1 Banjar masih didominasi oleh media *PowerPoint* yang statis dan metode ceramah satu arah, sehingga keterlibatan aktif peserta didik dan ketercapaian tujuan pembelajaran tergolong rendah, yaitu hanya 18,2% peserta didik yang mencapai Kriteria Ketercapaian Tujuan Pembelajaran. Penelitian ini bertujuan menghasilkan media pembelajaran interaktif berbasis *Collaborative and Inquiry Problem Based Learning* (CIPBL) pada materi perubahan lingkungan yang valid dan praktis dengan karakteristik yang mendukung pembelajaran mendalam peserta didik kelas X SMA. Penelitian pengembangan ini menggunakan model ADDIE (*Analyze*, *Design*, *Development*, Implementation, Evaluation). Data dikumpulkan melalui observasi, wawancara, dan angket, kemudian dianalisis secara deskriptif kualitatif dan kuantitatif. Validitas isi instrument menggunakan *Gregory,* validitas menggunakan persentase skor ahli sedangkan kepraktisan dianalisis menggunakan teknik deskriptif persentase. Produk yang dihasilkan berupa situs web interaktif berbasis *Google Sites* yang terdiri dari komponen lima tahapan sintaks CIPBL (orientasi masalah, merumuskan masalah, penyelidikan, penyajian hasil, dan evaluasi) secara konsisten pada tiga sub bab materi. Hasil validasi oleh dua ahli materi dan dua ahli media masing-masing memperoleh persentase rerata 96,29% dan 99,30% dengan kriteria sangat valid. Hasil uji coba kepraktisan pada uji coba perorangan, uji coba kelompok kecil, dan uji coba praktisi guru berturut-turut memperoleh 89,12%, 88,21%, dan 96,15%, yang seluruhnya berkriteria sangat praktis. Dengan demikian, media pembelajaran interaktif berbasis CIPBL yang dikembangkan layak digunakan sebagai alternatif media pembelajaran Biologi yang dirancang berdasarkan prinsip pembelajaran mendalam pada materi perubahan lingkungan.

Kata kunci: media pembelajaran interaktif; CIPBL; perubahan lingkungan; pembelajaran mendalam; model ADDIE

DEVELOPMENT OF INTERACTIVE LEARNING MEDIA BASED ON COLLABORATIVE AND INQUIRY PROBLEM BASED LEARNING (CIPBL) ON ENVIRONMENTAL CHANGE MATERIAL TO SUPPORT DEEP LEARNING

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ABSTRACT

Biology instruction on environmental change at SMA Negeri 1 Banjar has remained dominated by static PowerPoint slides and one-way lecturing, resulting in low student engagement and a low achievement rate of learning objectives, with only 18.2% of students reaching the minimum learning-achievement criterion. This study aimed to produce a valid and practical interactive learning medium based on Collaborative and Inquiry Problem based learning (CIPBL) on the topic of environmental change to support deep learning among tenth-grade students. This research and development study employed the ADDIE model (Analyze, Design, Development, Implementation, Evaluation). Data were collected through observation, interviews, and questionnaires, then analyzed descriptively using qualitative and quantitative approaches. Product validity was analyzed using the Gregory index, while practicality was analyzed using descriptive percentage analyze. The resulting product is an interactive Google Sites-based website that consistently integrates the five stages of the CIPBL syntax (problem orientation, problem formulation, investigation, presentation of findings, and evaluation) across three sub-topics. Validation by two content experts and two media experts yielded mean percentages of 96,29% and 99.30%, respectively, both categorized as highly valid. Practicality trials involving individual testing, small-group testing, and teacher-practitioner testing yielded 89.12%, 88.21%, and 96.15%, respectively, all categorized as highly practical. These findings indicate that the developed CIPBL-based interactive medium is feasible for use as an alternative Biology learning medium that supports deep learning on the topic of environmental change.

Keywords: *interactive learning media; CIPBL; environmental change; deep learning; ADDIE model*