

ABSTRAK**PENGEMBANGAN LEMBAR KERJA PESERTA DIDIK (LKPD) INTERAKTIF
BERBASIS *PREDICT-OBSERVE-EXPLAIN* (POE) PADA MATERI
METABOLISME KELAS XII SMA****Putri Sarah Malau****Universitas Sanata Dharma**

Analisis kebutuhan sekolah dilakukan melalui kegiatan wawancara pada guru biologi di lima Sekolah Menengah Atas Daerah Istimewa Yogyakarta. Hasil wawancara menunjukkan adanya permasalahan dalam pembelajaran daring. Permasalahan yang dijumpai adalah kurangnya variasi perangkat pembelajaran yang interaktif, salah satunya LKPD. Penggunaan LKPD yang interaktif bertujuan untuk meningkatkan rasa antusias peserta didik dan membantu peserta didik dalam memahami materi. Penyajian data atau informasi didesain lebih menarik dengan menampilkan gambar dan video. Oleh karena itu, penelitian ini dilakukan untuk mengembangkan LKPD interaktif berbasis *Predict-Observe-Explain* (POE) pada materi metabolisme kelas XII karena materi bersifat abstrak. Penelitian ini bertujuan untuk mengetahui langkah-langkah pengembangan dan kelayakan LKPD interaktif berbasis POE.

Penelitian ini menggunakan metode *Research and Development* (R&D) menurut Sugiyono. Penelitian ini dilaksanakan sampai tahap revisi produk untuk mengetahui kualitas dan kelayakannya. Produk yang dikembangkan divalidasi oleh ahli media, ahli materi, dan dua guru mata pelajaran biologi kelas XII.

Hasil data validasi dianalisis secara kuantitatif dan kualitatif. Hasil validasi produk oleh empat validator menunjukkan nilai rata-rata 88,18% dengan kriteria "sangat valid". Produk LKPD interaktif berbasis POE yang dikembangkan layak untuk diujicobakan secara terbatas sesuai dengan komentar dan saran dari para validator.

Kata Kunci: *Research and Development* (R&D), LKPD interaktif, POE (*Predict-Observe-Explain*), metabolisme.

ABSTRACT

**DEVELOPMENT OF INTERACTIVE STUDENT WORKSHEETS (LKPD) BASED ON
PREDICT-OBSERVE-EXPLAIN (POE) IN METABOLISM MATERIALS OF
TWELFTH GRADE**

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Analysis of school needs was carried out through interviews with biology teachers in five high schools in the Special Region of Yogyakarta. The results of the interviews showed that there were problems in online learning. The problem encountered is the lack of variety of interactive learning tools, which is LKPD. The use of interactive worksheets aims to increase the enthusiasm of students and help students understand the material. The presentation of data or information is designed to be more attractive by displaying images and videos. Therefore, this study was conducted to develop an interactive LKPD based on Predict-Observe-Explain (POE) on class XII metabolism material because the material is abstract. This study aims to determine the development steps and feasibility of POE-based interactive LKPD.

This study uses the Research and Development (R&D) method according to Sugiyono. This research was carried out until the product revision stage to determine the quality and feasibility. The product developed was validated by media experts, material experts, and two biology class XII teachers.

The results of the validation data were analyzed quantitatively and qualitatively. The result of product validation by four validators showed an average value of 88.18% with the criteria "very valid". The developed POE-based interactive LKPD product deserves to be tested on a limited basis according to the comments and suggestions from the validators.

Keywords: Research and Development (R&D), Interactive Student Worksheets, POE (Predict-Observe-Explain), Metabolism.