

**PENGEMBANGAN E-MODUL BERBASIS *PREDICT OBSERVE EXPLAIN*
MATERI LUAS DAN KELILING BANGUN DATAR KELAS IV SD
NEGERI 5 SUMERTA**

Oleh

Ni Kadek Putri Chandranathasya, NIM 2111031095

Jurusan Pendidikan Dasar

ABSTRAK

Penelitian ini mengangkat permasalahan terkait pembelajaran matematika khususnya pada materi luas dan keliling bangun datar yang dapat meningkatkan pemahaman serta minat belajar siswa dalam pembelajaran Matematika. Penelitian ini bertujuan untuk mengembangkan desain dan pengembangan produk e-modul berbasis *Predict-Observe-Explain (POE)*, menilai kualitas e-modul tersebut melalui evaluasi ahli, uji perorangan, dan uji kelompok kecil, serta menentukan efektivitas media e-modul berbasis *Predict-Observe-Explain*. Penelitian ini menggunakan model pengembangan ADDIE (*Analyze, Design, Development, Implementation, Evaluation*) dan pengumpulan data dilakukan melalui wawancara, kuisioner, dan tes. Teknik analisis data yang digunakan adalah analisis deskriptif kuantitatif, deskriptif kualitatif dan statistik inferensial. Hasil penelitian menunjukkan bahwa e-modul berbasis *Predict-Observe-Explain* yang dikembangkan menggunakan aplikasi Canva. Penilaian dari ahli isi menghasilkan skor 97,7%, ahli desain instruksional 90%, dan ahli media pembelajaran 92,3%. Uji perorangan yang melibatkan tiga siswa memperoleh skor 97,5%, sedangkan uji kelompok kecil yang melibatkan sembilan siswa menghasilkan skor 94,4%, keduanya termasuk kategori sangat baik. Hasil uji-t menunjukkan nilai 21,70, yang lebih besar dari nilai t-tabel 2,052 pada tingkat signifikansi 5% dengan derajat kebebasan sebesar 27, sehingga H_0 ditolak dan H_1 diterima. Disimpulkan E-modul berbasis *Predict-Observe-Explain* terbukti efektif untuk mengajarkan topik luas dan keliling bangun datar pada siswa kelas IV di SD 5 Sumerta.

Kata Kunci: E-Modul, Bangun Datar, Luas dan Keliling, Matematika

**DEVELOPMENT OF E-MODULE BASED ON PREDICT OBSERVE
EXPLAIN AREA AND PERIOD OF PLANE SHAPES MATERIAL FOR
CLASS IV OF STATE ELEMENTARY
SCHOOL 5 SUMERTA**

By

Ni Kadek Putri Chandranathasya, NIM 2111031095

Elementary Education Department

ABSTRACT

This study raises issues related to mathematics learning, especially on the material of area and perimeter of flat shapes that can improve students' understanding and interest in learning Mathematics. This study aims to develop the design and development of e-module products based on Predict-Observe-Explain (POE), assess the quality of the e-module through expert evaluation, individual tests, and small group tests, and determine the effectiveness of e-module media based on Predict-Observe-Explain. This study uses the ADDIE (Analyze, Design, Development, Implementation, Evaluation) development model and data collection is carried out through interviews, questionnaires, and tests. The data analysis techniques used are quantitative descriptive analysis, qualitative descriptive analysis and inferential statistics. The results of the study showed that the e-module based on Predict-Observe-Explain which was developed using the Canva application. The assessment from content experts produced a score of 97.7%, instructional design experts 90%, and learning media experts 92.3%. The individual test involving three students obtained a score of 97.5%, while the small group test involving nine students produced a score of 94.4%, both of which are in the very good category. The t-test results showed a value of 21.70, which is greater than the t-table value of 2.052 at a significance level of 5% with a degree of freedom of 27, so H_0 is rejected and H_1 is accepted. It is concluded that the Predict-Observe-Explain based E-module has proven effective in teaching the topic of area and circumference of flat shapes to fourth grade students at SD 5 Sumerta.

Keywords: E-Module, Planar Shapes, Area and Perimeter, Mathematics