

**PENGEMBANGAN BAHAN AJAR FLUIDA STATIS BERBASIS  
STRATEGI PEMBELAJARAN PDEODE\*E BERBANTUAN PhET  
UNTUK MENGIDENTIFIKASI PROFIL MODEL MENTAL PESERTA  
DIDIK SMA**

**SKRIPSI**

*Diajukan untuk memenuhi sebagian syarat dalam memperoleh gelar Sarjana  
Pendidikan pada Program Studi Pendidikan Fisika*



disusun oleh  
Putri Amelia Solihah 1700800

**DEPARTEMEN PENDIDIKAN FISIKA  
FAKULTAS PENDIDIKAN MATEMATIKA DAN ILMU PENGETAHUAN ALAM  
UNIVERSITAS PENDIDIKAN INDONESIA  
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Sebuah skripsi yang diajukan untuk memenuhi salah satu syarat memperoleh gelar  
Sarjana Pendidikan pada Program Studi Pendidikan Fisika

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Universitas Pendidikan Indonesia

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**ABSTRAK**

Penelitian ini bertujuan untuk menghasilkan bahan ajar fluida statis berbasis strategi pembelajaran PDEODE\*E berbantuan PhET untuk mengidentifikasi profil model mental peserta didik SMA. Desain penelitian yang digunakan adalah 4D (*Defining, Designing, Developing, & Disseminating*). Partisipan yang terlibat dalam penelitian ini adalah 25 peserta didik (17 perempuan dan 8 laki-laki rata-rata berumur 17 tahun) di salah satu SMA Negeri di Bandung. Instrumen penelitian yang digunakan adalah angket respon peserta didik dan *Four-Tier Diagnostic Test-Fluid Static* (FTDT-FS). Angket berisi 10 pertanyaan dan Instrumen FTDT-FS terdiri dari 10 butir soal yang telah dianalisis menggunakan analisis Rasch yaitu dengan menganalisis butir soal (*item fit*), *summary statistic*, dan *person-item map*. Hasil penelitian menunjukkan Bahan Ajar Fluida Statis Melalui Strategi Pembelajaran PDEODE\*E Berbantuan PhET memiliki tingkat kelayakan sangat baik yakni 82.5%, selain itu hasil uji coba instrumen FTDT-FS yang ada di dalam bahan ajar ini menghasilkan empat kategori profil model mental peserta didik. Kategori *scientific* dengan persentase sebesar 52% pada tekanan hidrostatis, kategori *Synthesis-Partial Understanding* memiliki persentase terbesar yaitu 44,6% pada indikator hukum archimedes, kategori *initial* dengan persentase sebesar 13,3% pada indikator hukum archimedes, dan kategori *misconception* pada indikator hukum archimedes dengan persentase sebesar 12,6%. Oleh karena itu, bahan ajar fluida statis berbasis strategi pembelajaran PDEODE\*E dapat digabungkan dengan simulasi PhET sehingga dapat mengidentifikasi profil model mental peserta didik SMA.

**Kata Kunci:** Bahan Ajar, Fluida Statis, Strategi Pembelajaran PDEODE\*E, PhET, Model Mental

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