

ABSTRAK

QATHRATUN NADA: Pengembangan Modul Fisika Berbasis Model Pembelajaran *Problem Based Learning* Pada Materi Fluida Statis. **Program Studi Pendidikan Fisika FKIP Universitas Malikussaleh, 2024.**

Penelitian ini bertujuan untuk mengembangkan modul fisika berbasis model pembelajaran *Problem Based Learning* pada materi fluida statis yang layak, praktis dan efektif digunakan dalam proses pembelajaran.

Penelitian ini merupakan penelitian pengembangan dengan model *Borg and Gall* yang terdiri dari 7 tahapan pengembangan yaitu 1) *Research and Information Collection*, 2) *Planning*, 3) *Develop Preliminary Form of Product*, 4) *Preliminary Field Testing*, 5) *Main Product Revision*, 6) *Main Field Testing*, 7) *Operational Product Revision*. Uji coba produk utama dilakukan di SMA Negeri 2 Peusangan pada dua kelas yaitu kelas kontrol dan eksperimen. Teknik pengumpulan data yang digunakan adalah wawancara, angket dan tes. Teknik analisis data kelayakan menggunakan hasil validasi dosen ahli materi dan media, analisis data kepraktisan menggunakan hasil angket respon siswa dan analisis data keefektifan menggunakan *uji independent sample t-test*.

Hasil penelitian menunjukkan bahwa kelayakan modul berada pada kategori “sangat layak” dengan hasil validasi ahli materi sebesar 86,9% dan validasi ahli media sebesar 89,2%, (2) Kepraktisan modul berada pada kategori “sangat praktis” dengan hasil 86%, (3). Keefektifan modul berdasarkan *uji t-test* memperoleh nilai signifikansi *2-tailed* sebesar 0.000 maka modul fisika berbasis model PBL pada materi fluida statis efektif untuk digunakan dalam pembelajaran.

Dengan demikian, pengembangan modul fisika berbasis model pembelajaran *Problem Based Learning* pada materi fluida statis dinyatakan layak, praktis dan efektif untuk digunakan sebagai bahan ajar. Pengembangan lebih lanjut dapat dilakukan pada materi fisika lainnya yang sesuai dengan model PBL.

Kata kunci: Modul, Bahan Ajar, *Problem Based Learning*, Pengembangan, Fluida Statis.

ABSTRACT

QATHRATUN NADA: Development of Physics Module Based on Problem Based Learning Model on Static Fluid Material. **Physics Education Study Program, FKIP, Malikussaleh University, 2024.**

This study aims to develop a physics module based on the Problem Based Learning learning model on static fluid material that is feasible, practical and effective to use in the learning process.

This research is a development research with the Borg and Gall model which consists of 7 stages of development, namely 1) Research and Information Collection, 2) Planning, 3) Develop Preliminary Form of Product, 4) Preliminary Field Testing, 5) Main Product Revision, 6) Main Field Testing, 7) Operational Product Revision. The main product trial was conducted at SMA Negeri 2 Peusangan in two classes, namely the control and experimental classes. The data collection techniques used were interviews, questionnaires and tests. The feasibility data analysis technique used the validation results of expert lecturers in material and media, the practicality data analysis used the results of student response questionnaires and the effectiveness data analysis used the independent sample t-test.

The results of the study showed that the feasibility of the module was in the "very feasible" category with the results of the material expert validation of 86.9% and the validation of the media expert of 89.2%, (2) The practicality of the module was in the "very practical" category with the results of 86%, (3). The effectiveness of the module based on the t-test obtained a 2-tailed significance value of 0.000, so the physics module based on the PBL model on static fluid material is effective for use in learning.

Thus, the development of a physics module based on the Problem Based Learning learning model on static fluid material is declared feasible, practical and effective for use as teaching materials. Further development can be carried out on other physics materials that are in accordance with the PBL model.

Keywords: Module, Teaching Materials, Problem Based Learning, Development, Static Fluids.