

ABSTRACT

Dedi Wardianto, 2020. *Development of Problem-project Based Learning (PPjBL) Models in Automotive Engineering Vocational Education.*

This research is motivated by the learning process of Gasoline Motors which tends to be teacher center oriented so that it becomes monotonous and boring. This causes the motivation and learning outcomes of students to be not optimal. this study aims to develop a Problem-project Based Learning Model PPjBL in Petrol Motorcycle learning in Automotive Engineering Vocational Education that is valid, practical, and effective.

This type of research is Research and development (R&D), with methods and procedures for developing this research using ADDIE (Analyze, Design, Development, Implementation, Evaluate) Dick & Care, 1996; Gustafson & Branch, 1997:7)

The resulting product is validated through focus group discussions attended by experts. The effectiveness test was tested by comparing the learning outcomes of the experimental and control classes using t-test. Practicality test uses instruments that are given to students as respondents.

The research resulted in a Problem Project Based Learning (PPjBL) model in Petrol Motorcycle learning in automotive Engineering Vocational Education that is valid, practical, and effective. The eight PPjBL model syntaxes produced were (1) interview, (2) feedback, (3) problem solving, (4) preparing a project schedule, (5) presenting problem solving, (6) work assignments, (7) assessment of project results, (8) evaluating learning. Based on the findings it can be concluded that the PPjBL Model is valid, practical, and effective can improve student competency and learning outcomes

Keywords: *Model Problem Project Based Learning, Gasoline Motors, Research and Development.*

ABSTRAK

Dedi Wardianto, 2020. Pengembangan Model *Problem-Project Based Learning* (PPjBL) pada Pendidikan Vokasi Teknik Otomotif. Disertasi Program Pascasarjana Fakultas Teknik Universitas Negeri Padang.

Penelitian ini dilatar belakangi oleh proses pembelajaran Motor Bensin yang cenderung masih bersifat *teacher center oriented* sehingga menjadi monoton dan membosankan. Hal ini menyebabkan motivasi dan hasil belajar mahasiswa menjadi belum optimal. Penelitian ini bertujuan untuk mengembangkan Model *Problem-Project Based Learning* (PPjBL) dalam Pembelajaran Motor Bensin pada Pendidikan Vokasi Teknik Otomotif yang valid, praktis, dan efektif.

Prosedur Pengembangan penelitian ini menggunakan ADDIE (menganalisis, mendesain, mengembangkan, mengimplementasikan dan mengevaluasi). Produk yang dihasilkan divalidasi melalui *Focus Group Discussion* (FGD) yang dihadiri oleh pakar. Uji efektifitas diuji dengan membandingkan hasil belajar kelas eksperimen dan kontrol menggunakan uji-t. Uji praktikalitas menggunakan instrument yang diberikan kemahasiswa sebagai responden.

Penelitian ini menghasilkan Model *Problem-Project Based Learning* (PPjBL) dalam Pembelajaran Motor Bensin pada Pendidikan Vokasi Teknik Otomotif yang valid, praktis, dan efektif. Delapan sintak model PPjBL yang dihasilkan adalah (1) interview, (2) umpan balik, (3) pemecahan masalah, (4) menyusun jadwal proyek, (5) mempresentasikan penyelesaian masalah, (6) pengerjaan tugas, (7) penilaian hasil, (8) melakukan evaluasi. Berdasarkan hasil temuan dapat disimpulkan bahwa Model PPjBL yang valid, praktis, dan efektif dapat meningkatkan kompetensi dan hasil belajar mahasiswa.

Kata kunci: Model *Problem Project Based Learning*, Motor Bensin, Penelitian dan Pengembangan.