

**PENGEMBANGAN MODUL PADA MATA PELAJARAN SISTEM UTILITAS
BANGUNAN GEDUNG KELAS XI SEMESTER GENAP PROGRAM KEAHLIAN
TKGSP SMKN 2 PENGASIH KULONPROGO**

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ABSTRAK

Tujuan penelitian ini dirancang untuk: (1) Menghasilkan Modul pembelajaran Sistem Utilitas Bangunan Gedung kelas XI Program Keahlian TKGSP di SMK Negeri 2 Pengasih; (2) Mengetahui kelayakan modul Teknik Bangunan yang telah dibuat untuk kelas XI Program Keahlian TKGSP di SMK Negeri 2 Pengasih Kulonprogo.

Penelitian ini merupakan penelitian pengembangan (Research and Development). Desain penelitian yang digunakan mengacu pada model pengembangan 4-D model dengan empat tahapan pokok yaitu, (1) Pendefinisian (Define); (2) Perancangan (Design); (3) Tahap pengembangan (Develop); (4) Tahap penyebaran (Disseminate). Jenis data yang digunakan adalah kuantitatif dan kualitatif. Serta teknik analisis data dalam penelitian ini adalah deskriptif kuantitatif.

Hasil penelitian diketahui bahwa: proses pengembangan Modul Teknik Bangunan berdasarkan tahap define, design, develop dan disseminate. Hasil penilaian tingkat kelayakan modul yang divalidasi oleh ahli materi I memperoleh tingkat kelayakan sebesar 4,46 (sangat layak) dan ahli materi II memperoleh tingkat kelayakan sebesar 4,52 (sangat Layak). Penilaian tingkat kelayakan oleh ahli media I sebesar 4.46 dan ahli media II sebesar 4,46 (sangat Layak). Sehingga modul dikategorikan sangat layak digunakan untuk bahan pembelajaran peserta didik di SMKN 2 Pengasih Kulonprogo

Kata kunci : Pengembangan, Modul, Teknik Bangunan.

**MODULE DEVELOPMENT IN TEACHING SYSTEM FOR CLASS XI
BUILDING UTILITY BUILDING PROGRAM EVEN SEMESTER EXPERTISE
OF TKGSP SMKN 2 PENGASIH KULONPROGO**

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ABSTRACT

The purpose of this study was designed to: (1) Generate a Learning Module for Building Utilities System class XI TKGSP Expertise Program at SMK Negeri 2 Pengasih; (2) Knowing the feasibility of the Building Engineering module that has been made for class XI TKGSP Expertise Program at SMK Negeri 2 Pengasih Kulonprogo.

This research is a research development (Research and Development). The research design used in the 4-D model development model with four main steps namely, (1) Definition (Set); (2) Design (Design); (3) Development Stage (Developing); (4) Dissemination stage. The type of data used is quantitative and qualitative. Data collection was carried out using a questionnaire. The data analysis technique in this research is quantitative descriptive.

The results of the study note that: the process of developing the Building Engineering Module is based on the definition, design, development and dissemination. The results of the module feasibility level were validated by material expert I, the feasibility level reached 4.46 (very feasible) and material expert II, the feasibility level reached 4.52 (very decent). The value of the level of eligibility by media experts is 4.46 and media expert II is 4.46 (very decent). Learning modules are categorized as very appropriate to be used for learning materials for students in SMKN 2 Pengasih Kulonprogo

Keywords: Development, Modules, Building Engineering.