

**PENGEMBANGAN *TRAINER-KIT TRANSMISSION LINE MODEL TM 199*
SEBAGAI MEDIA PEMBELAJARAN PADA MATA KULIAH
TRANSMISI DAN DISTRIBUSI TENAGA LISTRIK
DI FAKULTAS TEKNIK UNIVERSITAS NEGERI YOGYAKARTA**

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ABSTRAK

Penelitian ini bertujuan untuk: (1) merancang dan membuat media pembelajaran *Trainer-Kit Transmission Line Model TM 199* di Jurusan Pendidikan Teknik Elektro FT UNY; (2) mengetahui hasil produk yang ditinjau dari proses perencanaan dan unjuk kerja media pembelajaran *Trainer-Kit Transmission Line Model TM 199*; (3) mengetahui kelayakan media pembelajaran *Trainer-Kit Transmission Line Model TM 199* menurut ahli materi dan ahli media; (4) mengetahui tingkat kelayakan media *Trainer-Kit Transmission Line Model TM 199* menurut pengguna (mahasiswa).

Penelitian ini merupakan penelitian pengembangan atau *Research and Development (R&D)* yang mengacu pada model penelitian menurut *Robert Maribe Branch: The ADDIE Approach* dengan tahapan-tahapan (1) *analyse*; (2) *design*; (3) *develop*; (4) *implementation*; dan (5) *evaluation*. Subyek dalam penelitian ini adalah mahasiswa kelas D1 dan D2 Angkatan 2016 dari Program Studi Pendidikan Teknik Elektro sebanyak 25 mahasiswa. Lokasi penelitian ini dilakukan di Bengkel Mesin Listrik Jurusan Pendidikan Teknik Elektro FT UNY. Teknik pengumpulan data yang digunakan dalam penelitian ini adalah observasi, wawancara dan angket untuk mengukur tingkat kelayakan media dengan menggunakan skala likert dengan empat opsi jawaban. Hasil uji reliabilitas angket diperoleh nilai koefisien sebesar 0,805.

Produk yang dihasilkan berupa *trainer-kit* dan *jobsheet* untuk Praktikum Transmisi Dan Distribusi Tenaga Listrik. Hasil kelayakan media pembelajaran ditinjau dari ahli materi dengan aspek kualitas materi dan kemanfaatan memperoleh persentase 80,12% dengan kategori “layak”. Hasil validasi ahli media yang memiliki tiga aspek, yaitu aspek tampilan, aspek kualitas teknis, dan aspek kemanfaatan yang memperoleh nilai persentase 84,40% dengan kategori “sangat layak”. Berdasarkan respons mahasiswa yang meliputi aspek kualitas isi materi, aspek desain tampilan dan kemanfaatan memperoleh nilai persentase 86,71% dengan kategori “sangat layak”.

Kata kunci: *Trainer-Kit Transmission Line Model TM 199*, Pengembangan Media Pembelajaran.

**DEVELOPMENT OF TRAINER KIT TRANSMISSION LINE MODEL TM
199 AS A LEARNING MEDIA FOR ELECTRICAL POWER
TRANSMISSION AND DISTRIBUTION FOR ENGINEERING FACULTY
OF YOGYAKARTA STATE UNIVERSITY**

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ABSTRACT

This research is aimed to: (1) design and develop Trainer-Kit Transmission Line Model TM 199 as learning media at Department of Electrical Engineering Education, engineering Faculty of Yogyakarta State University; (2) to knowing the product results which are reviewed from the planning process and the performance of learning media Trainer-Kit Transmission Line Model TM 199; (3) to knowing the feasibility of learning media Trainer-Kit Transmission Line Model TM 199 according to material experts and media experts; (4) to knowing the level of media feasibility Trainer-Kit Transmission Line Model TM 199 according user (student).

This study was a kind of Research and Development (R&D) research using ADDIE model by Robert Maribe Branch as the approach with stages (1) analyse; (2) design; (3) development; (4) implementation; (5) evaluation. The subjects in this study were D1 and D2 class of 2016 students from Electrical Engineering Education Program as much as 25 students. The location of this study was carried out in the Electric Machine Workshop at the Department of Electrical Engineering Education, engineering Faculty of Yogyakarta State University. Data collection techniques used in this study were observations, interviews and questionnaires to measure the level of media feasibility using a Likert scale with four answer options. The questionnaire reliability test results obtained a coefficient of 0.805.

The result that produced are a trainer and a jobsheet for Practical Electricity Transmission and Distribution. The results of the feasibility of learning media in terms of material expert validation which includes the quality aspects of the material content, and aspects of benefit that obtained a percentage value of 80,12% with the "feasible" category. The results of media expert validation which included the display design, technical operation, and the benefit aspects obtained a percentage value of 84.40% in the "very feasible" category. Based on responses from students that included the quality of material content aspect, technical operation aspect, and the usefulness obtained a percentage value of 87.35% with the category "very feasible".

Keywords: *Trainer-Kit Transmission Line Model TM 199, Learning Media Development.*