

**The Learning Enrichment Model of Electrical Machines Practice
Using Delphi Program in Electrical Machine Laboratory at Department of
Electrical Engineering Education Faculty of Engineering of
Yogyakarta State University**

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Abstract

The objectives of this study were designed to (1) develop the learning enrichment media of electrical machines practices using Delphi program, (2) develop instructional materials of learning enrichment model of electrical machines practice using Delphi program, and (3) produce the learning enrichment model of electrical machines practice using Delphi program. This study produced the Delphi's application software of learning enrichment model of electrical machines practice including its manual and labsheets for learning enrichment of electrical machines practice activities.

This was research and development approach using ADDIE method (Analysis, Design, Development, Implementation, Evaluation) with several steps: (1) analyzing an enrichment materials of electrical machine practice that can be conducted using Delphi's simulation program, (2) designing a learning media for learning enrichment of electrical machine practice using Delphi program, (3) producing the learning enrichment media of electrical machines practices using Delphi program, (4) trying out the media product of learning enrichment of electrical machines practice using Delphi program to the limited students, and (5) evaluating the effectiveness of instructional media product of learning enrichment of electrical machine practice activities using Delphi's simulation program. The questionnaires were used to determine the product quality of content, media, and effectiveness. The 15 students of Electrical Engineering Education of FT UNY were as research subjects in this study. Data were analyzed by descriptive method presented in frequency distributions and graphs.

The study results are obtained: (1) the instructional media quality for learning enrichment of electrical machines practice using Delphi's simulation program, which include the contents quality for learning enrichment of electrical machines practice is in very decent category, while its media quality is in feasible category, (2) the effectiveness of learning instructional for learning enrichment of electrical machines practice using Delphi's simulation program is in feasible category, and (3) the learning procedure for learning enrichment of electrical machines practice using Delphi's simulation program for students in the Department of electrical Engineering Education of FT UNY

Keywords: Electrical Machines Practice Enrichment, Delphi