

DEVELOPMENT OF CERTIFICATION SCHEMES FOR THE ELECTRICAL INSTALLATION COMPETENCE FOR STUDENTS OF ELECTRICAL ENGINEERING EDUCATION STUDY PROGRAM

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ABSTRACT

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The aims of this study were to: (1) find out the opinions of students/prospective teachers about the current Competency Scheme for Electrical Installation, (2) develop a Competency Certification Scheme for Electrical Installation (IPTL) for Students of the Electrical Engineering Education Study Program, Faculty of Engineering, State University of Yogyakarta); (3) Knowing the level of feasibility of the Competency Certification Scheme for Electrical Installation developed.

This research was conducted at the Department of Electrical Engineering Education, Faculty of Engineering, Yogyakarta State University from February to September 202. The development procedure uses the Pressman and Steward model, which consists of steps: needs analysis, design, validation, development, implementation and testing. The data collection uses a questionnaire and assessment of the feasibility of the certification scheme. The respondents of this study were lecturers, student assessors, and practitioners in the field of Electrical Power Utilization Installation Engineering. The validation of the research instrument was by expert consideration through FGD by calculating the Aiken's V index. The data analysis technique used quantitative descriptive analysis, namely the average and percentage.

The results of the study are as follows: (1) Knowing the results of a survey of student opinions about the current competency certification scheme are: (a) there was no certification scheme specifically for IPTL teacher candidates as much as 68% students, (b) competency test materials are lacking comprehensive as much as 51%, (c) the competency level is not in accordance with the level of prospective teachers as much as 32%, and (d) the competency level has not referred to the KKNI level as much as 18%, so it is necessary to develop a certification scheme for the IPTL skill competency test to suit the material and competency level and in accordance with the needs and demands of teachers in carrying out their duties as teachers in IPTL expertise in SMK; (2) Produce a product of the Competency Cluster Certification Scheme for Low Voltage of Electrical Installation (IPTL) for Students of the Electrical Engineering Education Study Program; (3) The level of feasibility of the IPTL Certification Scheme product is very feasible with an average score of 3.66 out of 4.00.

Kata Kunci: *certification scheme, competency certification, electrical installation competency*