



## **RESEARCH REPORT**

## COOPERATION BETWEEN INDUSTRIES AND EDUCATIONAL INSTITUTIONS FOR TVET IN THE FIELD OF HEAVY EQUIPMENT

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## ABSTRACT

This study aims to determine: (1) profile and competence of graduates that can meet the needs of the industry, (2) profile and competence of educators / trainers, (3) pattern of cooperation between industry and educational institutions on vocational education and training program in the field of heavy equipment (4) contribution by each parties in the implementation of cooperation.

This study used survey method with a qualitative approach. This study population is for the parties involved and interested in the implementation of vocational education and training program in the field of heavy equipment. The sample of the research consisted of three parties, namely: vocational education institutions as a producer of middle-level manpower, a company engaged in the field of heavy equipment distributor or a company engaged in mining, and the college as a producer for vocational educators. The data collection is conducted by: observation, interviews and document analysis. Data were analyzed using a model Creswell with stage steps: (1) data, (2) data reduction, (3) interpretation, (4) conclusions.

The results showed that: (1) Graduates of vocational education and training program in the field of heavy equipment according to the needs of the industry are: (a) Knowing and understanding how to use tools and equipment, master the concept of electricity, master the concept of the power train and hydraulic system, master the basic maintenance and troubleshooting of heavy equipment unit, (b) be able to apply the knowledge to repair and maintenance of heavy equipment unit, and (c) able to work independently with periodic monitoring. (2) Qualified educators in the field of heavy equipment must: (a) have academic qualifications S1 education in heavy equipment engineering, mechanical engineering or automotive engineering, (b) have experience internship or work in the field of heavy equipment, (c) have the pedagogical ability with a certificate of expertise on training and assessment, (d) have the ability and professional competence of the heavy equipment. (3) The pattern of relationship between vocational and industrial cooperation are: (a) fully collaborate (full partnership) in carrying out cooperation programs and (b) partial partnership that the school is in collaboration with some of the industry to carry out some activities of educational programs. Cooperative activities undertaken by the industry is only one aspect of the activities that is part of the overall educational program. (4) Each party has a positive contribution in accordance with the competence and scope of work of each institution.