An Evaluation of Implementation Industrial Work Practice Programs in Vocational School

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Abstract – This study determined CIPP evaluation of Internship implementation in SMK Negeri 1 Penukal and SMK Negeri 1 Talang Ubi in Penukal Ahab Lematang Ilir South Sumatera, Indonesia. The results obtained in this study indicate that there is positive implication for the implementation of the Internship, it has carried out its duties properly, through various stages of activities starting from preparation, briefing, implementation process, and monitoring of evaluation. Overall the internship implementation has been going well. The curriculum is really appropriate and applied to students' Internship activities so that the internship implementation runs smoothly, efficiently and effectively. There is always good communication between the school and industry.

Keywords – Program Evaluation, Industrial Work Practices, Vocational Schools.

I. INTRODUCTION

Vocational School (SMK) is a secondary education institution that strives to prioritize the development of the ability of students to directly work in a particular area of expertise when they finish school (Apriana et al, 2019). Students are also expected to have the ability to adapt in the work environment, can see work opportunities and can develop themselves of work later (Sukmadinata, 2015). Vocational school has the role and responsibility to prepare human resources who are able to work in accordance with the science of their expertise, so that the prepared human resources can have skills in their expertise. In this case the national education system law number 20 of 2003 says a vocational school is a formal education unit in which organizes secondary vocational education as a continuation of secondary school education. Vocational schools must also be able to create and produce programs to improve and develop the competency skills that must be mastered by each student before they are deployed to the world of work. The program includes carrying out industrial work practices.

As a form of implementation educational system in Vocational Schools, named dual system education. The Directorate of Vocational Development (2018) states that industrial work practices abbreviated with internship are a part of the learning program that every student is required to attend vocational school are ready to go directly into the workforce. In line with what was conveyed by the Directorate of Vocational Training in vocational high school curriculum 2013 (2018) stated that the Field Work Practice called PKL is an activity of the learning process carried out...
in industry for application, strengthening and increasing the competency of student’s expertise when they finish school, then they already have direct experience in the world of work.

Vocational High School educators need special attention from the government. In this case the government has prepared the concept of “link and match” in the process of providing vocational secondary education (Bukit, 2014). From the results of a preliminary study of observations and interviews conducted by us the internship supervisor in October 2018, shows that in reality in the process and internship implementation are still many problems which occurred include 1) facilities and infrastructure in schools are still lacking and inadequate; 2) work culture applied by students not optimal; 3) work discipline of students not optimal; 4) the social relations of students with mechanics in the industry not well done; 5) lack of sense of responsibility towards the work given; 6) lack of suitable graduates produced by Vocational School with the demand of the workforce; 7) In particular, the competency of Automotive Light Vehicle Engineering expertise has never been evaluated in the implementation of industrial work practices programs in SMK. It shows an indication that there are still shortages in the implementation of industrial engineering.

To improve the implementation, an evaluation of the program needs to be conducted to determine the extent of its success and to find out the shortcomings that exist, it can be improved in the subsequent implementation of the apprenticeship program. By holding an evaluation of the internship program, it will produce graduates who are really ready and able to compete in looking for employment opportunities both as entrepreneurs and become employees in a company. According to Stufflebeam & Shinkfield (2007) evaluation is a process that outlines and formulates something so that it can give an overview, obtain, report, and apply descriptive information and assess the information about an object’s benefits, worthiness, honesty, safety, meaning and fairness. Therefore in this case the evaluation of the program must produce a solution and improvement in its application for the future. Therefore, here we study more deeply about evaluating the implementation of industrial work practices programs in SMK.

According to Kuswana (2013), vocational education aims to prepare people who are ready directly enter the business and industrial environment when they graduate from schools both formal and non-formal. In Law Number 20 Year 2003 concerning the national education system Article 15 also stated that vocational education is a secondary education which in this case has a special role to prepare and create students to directly work in a certain area of expertise when they graduate from school. Vocational education has a role and responsibility in preparing workers who can have and master professional skills to work directly in the business world and in the industrial world in accordance with their particular field of expertise (Sarina et al, 2019; Tobari et al, 2018; Irmayani et al, 2018). But it does not rule out the possibility for students to continue to the next level of education or to college.

Regulation of the Director General of Primary and Secondary Education of the Ministry of Education and Culture Number 07/D.D5/KK/2018 which states the curriculum structure of the Vocational High School in the preparation of the SMK curriculum in this case the subjects are divided into three groups national content, regional content and vocational specialization 1) national content subjects are groups of subjects in which students are formed so that they can become good individuals, these subjects consist of Religious Education and Characteristics, Pancasila and Citizenship Education, Mathematics, Indonesian History, Indonesian, English and other foreign languages; 2) subjects of territorial content are groups of subjects in which students are formed in the work environment to meet the needs of students when they enter the world of work students can already understand the situation and working environment conditions.

According to Bukit (2014) industrial work practices are a form of real work practice activities carried out directly by students on production work on the production line, in this case students can do the work as they do in the workforce. Then according to the Directorate of PSMK (2016) it was explained in the Vocational School Curriculum 2013 implementation internship is a part of learning specifically programmed held in the world of society, the internship program is prepared jointly between the school and the community (partner Institution) with the aim of being able to meet the needs of students when they enter the world of work, and at the same time the world of work able to develop human resources through education in vocational
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schools. Further explained by the Directorate of Vocational Training the implementation Vocational School curriculum 2013 (2018) states that the Field Work Practice provide application, stabilization and competency improvement. In the implementation of street vendors here also involve experts’ practitioners who are experienced in their fields to provide reinforcement of learning by mentoring students when doing fieldwork practices.

From the above understanding it can be concluded that the apprenticeship is a vocational program that seeks to build cooperation with industry which requires students to follow these activities by means of work training in the world of work so that students get hands-on experience in the world of work and can add the competency of students in a particular field of expertise or in other words combines theory in school with practice in the business world directly.

The purpose of industrial work practices is expected that students get experience working in the business world, students can see and understand attitudes and work discipline directly so that students can apply it when they enter the workforce, students get competence vocational training in accordance with the competency standards demanded by the world of work, students get social competence in the form of students being able to work directly with colleagues in the field and students are expected ready to face problem in the world of work and can find solutions (Bukit, 2014).

According to Wirawan (2011) evaluation is a tool of various branches of science to analyze and assess the phenomena of science and the application of science in the application of science in professional practice. Furthermore, according to Arikunto (2014) program evaluation is a process carried out to find out the effectiveness of program components in supporting the achievement program being carried out. Thus, if it is known that the learning outcomes are not satisfactory, we can look for where the shortcomings are and can be improved for the future so the program will be even better.

From the above opinion it can be concluded that the evaluation is an assessment of the program that has been running to determine the good and bad of a program. The evaluation program used to collect information to what extent the program is running whether it is in accordance with the original purpose of the program, and then the information can be used to correct what is lacking in the program that has been running so it can be corrected in the future. After knowing the definition of evaluation, it can be concluded that the evaluation of industrial work practices is to gather information relating to industrial work practices from the preparation; implementation and we can find out how well the industrial work practices are carried out and if there are obstacles that can be fixed. In this case the purpose of the evaluation program is a guide to know the efficiency and effectiveness of activities. According to Arikunto (2014) there are two kinds of evaluation, general objectives and special objectives. In this case the general objectives are directed at the program as a whole, while the specific objectives are directed at each of its components. In addition, another opinion the purpose of the evaluation is to review the achievement and help to provide the next alternative in decision making. Then according to Musfah (2011) evaluation basically aimed at measuring the success of the program, in various aspects 1) participants’ learning outcomes in the form of changes in knowledge, attitudes, and skills that are expected as a result of the training gained; 2) the quality of the implementation training programs in technical and substantive aspects.

Based on the objectives stated by the experts above, it can be concluded that in this case the purpose of program evaluation is not only to prove but also to know and improve the achievement of program objectives and find out the implementation of program activities, because program evaluators want to find out how the components and sub-components have not been implemented and identify the causes, then follow up with decisions or improvements in the future of the program.

Program evaluation also has many benefits. The benefits of program evaluation according to Arikunto and (2014) include stopping the program, revising the program, continuing the program, and spreading the program. Arikunto (2014) differentiate evaluation models into 7 types 1) Goal Oriented Evaluation Model; 2) Goal Free Evaluation Model; 3) Formative-Sumative Evaluation Model; 4) Countenance Evaluation Model; 5) CSE-UCLA Evaluation Model; 6) Discrepancy Model; 7) CIPP Evaluation Model. The CIPP Evaluation Model is the best known and often applied model by evaluators, according to Widyoko (2015) the concept of evaluating the CIPP (Context, Input, Process, Product) model was first offered by Stufflebeam in 1965 as a result of his efforts to evaluate ESEA (The Elementary and Secondary Education Act). The concept was explained by Stufflebeam with the view that the important purpose of evaluation is not to prove but to improve. According to Zhang (2011) the task of the CIPP model is designed to systematically guide both evaluation and stakeholders and posing relevant questions and conducting assessments as the beginning of the project.
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(context and input evaluation), while it is progress (input and process evaluation), and at is end (product evaluation).

According to Hakan (2011) the CIPP evaluation model also has several weaknesses such requires more time or resources. In evaluating, the CIPP model it basically serves four types of decisions 1) planning decisions that can influence the selection of general objectives and special objectives; 2) the decision in making the structure, can determine whether the resources are available, consider strategies and alternative programs; 3) implementation decisions, how to implement the original plan, are there threats to the decision, are revisions needed, can procedures be monitored, controlled, and improved; 4) screening decisions that determine, what results are achieved, what must be done with the program that has been running. To be able to carry out these four types of decisions, there are four kinds of evaluation focus, namely context evaluation, input evaluation, process evaluation, and product evaluation.

Context Evaluation

Context evaluation is a description of the program’s environmental specifications, unmet needs, and program objectives. According to Widyoko (2015) the context evaluation was conducted to answer questions 1) what needs were not yet met by program activities; 2) the purpose of human development is related to meeting the needs; 3) which goals are most easily achieved.

Input Evaluation

Input evaluation is carried out aiming to identify and assess the capability of human resources, materials, tools, time, place and cost in implementing the chosen program (Mulyatiningsih, 2012). Evaluation is done by comparing whether the problem solving strategy and the design stages of the activity are relevant or not, feasible and economical according to the available resources.

Process Evaluation

Process evaluation is a very important aspect because it is a continuous assessment of the implementation of the action plan that has been developed by the organization (Topno, 2012). Process evaluation in this case aims to predict procedure designs and implementation plans during the implementation phase, can provide information for program decisions and as a record or archive of procedures that have taken place.

Product Evaluation

From the results of the evaluation process it is expected to provide information that can help evaluators in making decision regarding the continuation, end of program modifications. According to Stufflebeam, the evaluation of results is a further evaluation of the process. In this case the main purpose of the evaluation is to determine the extent to which the program that has been implemented can meet the needs of the groups that have used it (Hasan, 2001).

There are differences between one model and another, but have the same goal of providing all data and information for decision making in determining the follow-up to a program. We used the CIPP model as reference in assessing the implementation of work practices in the industry competency of Light Vocational Automotive Vehicle Engineering expertise in State Vocational Schools in Penukal Abab Lematang Ilir. We chose the CIPP model because it is easier to understand and more detailed in evaluating the components of the program, because it was carried out from beginning to end as a whole.

According to Arikunto (2014) there are seven sources in making criteria 1) if the evaluation is a policy implementation then what is used as a criterion or benchmark is a regulation that has been issued with respect to the relevant policy; 2) the criteria or benchmarks that are arranged are obtained from the manual or implementation manual; 3) if there are no provisions or implementation instructions that can be used by the compiler as a source of criteria, then use the concepts or theories contained in scientific books; 4) if there are no provisions, rules or instructions for implementation, and also no theory is referred to, the composer is advised to use the results of the study; 5) if it does not find a written and stable reference, it can request assistance and consideration from people who are considered to have strengths in the field being evaluated; 6) the compiled criteria are the result of group accuracy in other words can determine the criteria together with team members or some people who have insight about the program to be evaluated; 7) in evaluating the program, the criteria rely solely on the reasoning of the compiler itself as the basis for developing the criteria to be used. Criteria should be developed and made together and should be made by the people who use them.

II. METHODS

This research was an evaluation research using the CIPP model which focuses on the implementation of the Industrial Work Practices program of SMK Negeri 1 Penukal and SMK Negeri 1 Talang Ubi with a qualitative descriptive approach. Qualitative descriptive in program evaluation is used to collect, describe and explain the components being evaluated. The CIPP model emphasizes four main points 1)
context; 2) input; 3) process; and 4) product. The aim is to collect accurate and comprehensive information, then the information is used as a consideration for schools in making decisions to improve the internship program, improve the implementation of the internship program and be a reference in developing a better internship program.

This research was conducted at State Vocational Schools in Penukal Regency, Abab Lematang Ilir who had competency in automotive light vehicle engineering expertise, named State Vocational School 1 Penukal and State Vocational School 1 Talang Ubi. The time of this research was conducted in October 2018 until June 2019. Subjects in this study were vice principals in the field of public and industrial relations, supervisors from the school, mentors from the industrial world and XI grade students competencies in automotive light engineering expertise. The participants were class XI students of automotive light vehicle engineering consist of 106 people were 25 students from SMK Negeri 1 Penukal and 81 students from SMK Negeri 1 Talang Ubi, then the data retrieval from students is done by purposive sampling technique. The data were collected using observation, interviews, and documentation.

### III. RESULTS AND DISCUSSION

State Vocational School 1 Penukal is located in Jalan Masjid Al-Muhajirin, Babat village, Penukal Sub-district, Penukal Abab district, Lematang Ilir, with an area of 2 hectares. Penukal State Vocational School 1 was established in 2008 and started operational in 2008. In the 2018/2019 academic year Vocational School 1 Penukal had five skills competencies and 27 classes, and 909 students.

<table>
<thead>
<tr>
<th>No</th>
<th>Competency Competencies</th>
<th>Number of Classes</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Automotive Light Vehicle Engineering</td>
<td>5</td>
<td>151</td>
</tr>
<tr>
<td>2</td>
<td>Motorcycle Engineering and Business</td>
<td>3</td>
<td>87</td>
</tr>
<tr>
<td>3</td>
<td>Network Computer Engineering</td>
<td>8</td>
<td>282</td>
</tr>
<tr>
<td>4</td>
<td>Office Management Automation</td>
<td>6</td>
<td>218</td>
</tr>
<tr>
<td>5</td>
<td>Accounting and Financial Institutions</td>
<td>5</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>27</strong></td>
<td><strong>909</strong></td>
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Based on the results of research that have been obtained by us through observation, interviews and documentation studies, we try to describe the results of research that are presented based on the choice of evaluation model.

1. **Context Analysis**

Aspects of the Formal Legality of the Internship Program, a program that is implemented certainly refers to the formal foundation. Likewise with the existing apprenticeship program in SMK 1 Penukal and SMK Negeri 1 Talang Ubi referring to the formal foundation following the policy of Law Number 20 Year 2003 concerning the National Education System, Permendikbud Number 60 Year 2014 which discusses the SMK curriculum, Regulation of the Director General of Education Primary and Secondary Ministry of Education and Culture No. 07/D.DS/KK/2018 concerning Curriculum Structure of SMK/MAK, Permendikbud Number 53 Year 2015 concerning assessment of learning outcomes and Permendikbud Number 4 of 2018 concerning assessment of learning outcomes and guidance on assessment of learning outcomes and character development in vocational secondary school issued by the Directorate of Vocational High School Development in 2018 covering concepts, techniques and procedures of assessment, both attitude assessment, knowledge assessment, as well as skills and professionalism assessments (Khasanah et al, 2019; Salwa et al, 2019). As educators who design internship systems must meet the demands of the digital age. According to Kristiawan and Rahmat (2018) professionalism is a necessity that cannot be delayed anymore, the increasingly fierce competition in the era of globalization, the professionalism of a teacher needs to be increased. Professionalism is the work or activities carried out by someone and a source of income for life that requires expertise or skills that meet certain quality or norms and require professional education.

Evaluation of Context Variables begins by evaluating the internship implementation based on context variables. The activities carried out by the evaluators included assessing the needs, problems, assets and opportunities for the implementation of the Internship in SMK Negeri 1 Penukal and SMK Negeri 1 Talang Ubi. Internship needs are something that forms the basis of internship. The main need
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in the internship implementation is to produce competent and relevant graduates, where the graduates have the mastery of knowledge and skills that are in accordance with the competency of automotive light vehicle technical expertise and work ethic.

The results of the context evaluation indicate the need for improvement 1) adjusting the objectives of the implementation Internship with the curriculum used; 2) the need for the addition of Internship assets in the form of an analysis of the achievement of competencies in learning outcomes in schools as a basis for students' activities during Internship; 3) invite industry seriously to compile a joint curriculum, this is in accordance with Internship's initial concept of link and match, so it is relevant between the material in the school and the competencies expected by industry.

2. Input Analysis

Input aspects in the internship implementation not only come from within the students themselves, but also from the school that acts as a facilitator for student internship activities. Good input will produce good results, at least not so far if there are things that are missed than expected. This is in line with Stufflebeam's theory that evaluation of inputs does not only look at what is in the institutional environment (both material and personal), but must also be able to predict the possibilities that will be encountered in the future.

Inputs from the internship activities include students and schools. Inputs originating from students themselves include the students’ personalities then supported by input from schools which include teachers, infrastructure, and materials provided for students. Students are expected to become independent individuals who are full of responsibility when carrying out these internship activities. Teachers who are competent in their fields are also very important input in implementing internship. Whatever is conveyed by the teacher when giving material is very influential on the results of the internship implementation, because students will do what they know while studying in school. Prasetyo (2013) said that the input aspect had a positive influence on the success of industrial work activities.

The evaluation results on the input variables 1) need to prepare material Internship activities tailored to the needs of schools and industry so Internship activities are more directed; 2) the supervising teacher should be a productive teacher. If there is the need for adaptive and normative teacher involvement, then there should be a training effort related to Internship; 3) need to communicate with the industry in the determination of instructors.

3. Process Analysis

Process aspects in the internship implementation are a series of process activities that must be taken to get the desired results. The process of apprenticeship activities is not only to do what is ordered but also related to how student’s attitudes respond to these apprenticeship activities both manifested in the execution of tasks and interactions that exist between students and their supervisors. Process Evaluation will try to provide an illustration of the implementation process of the Internship program at SMK 1 Penukal and SMK Negeri 1 Talang Ubi. Implementation that becomes the target of evaluation is the implementation process, the assessment process, components, stages and benefits in the internship implementation.

Based on the standards used and the measurement process, the assessment of mastery of expertise in Dikmenjur (2008: 8) is classified into 1) competency test, which is a process of measuring and evaluating one’s mastery of expertise based on his mastery of abilities required and applicable in certain companies or on the basis of demands for specific employment needs; 2) professional test, which is a process of measuring one's expertise, based on his mastery of the ability standards required to be declared expert and authorized in certain fields of work.

The assessment process at SMK Negeri 1 Penukal and SMK Negeri 1 Talang Ubi must be improved, especially in the assessment of professional trials. This is done that SMK Negeri 1 Penukal and SMK Negeri 1 Talang Ubi have a guarantee that their graduates are relevant and competent in their fields. The process evaluation is an evaluation of the components of the internship implementation. Components that have not been properly provided are the issuance of the Internship certificate and the competency certificate.

The stages of implementation of the Internship in SMK Negeri 1 Penukal and SMK Negeri 1 Talang Ubi must be improved, so subsequent implementation becomes better and more targeted. Based on the evaluation results on the process variables, there needs to be improvements in (1) the assessment process; (2) the process of awarding certificates; and (3) improvements to the implementation phase of the Internship.

4. Product Analysis

Evaluation of product variables of these internship activities are the achievement of the internship objectives, the relationships between the school and the business world. The product evaluation will give an overview of the results obtained after the internship implementation. Evaluation of
the results of the internship implementation is done by looking at the values obtained by the Internship participants after doing Internship, both grades given by the industry and grades given by the school.

Based on the results of the evaluation process there must be improvements to the assessment process, this is intended that the product obtained is in line with expectations. So a student is not only recognized for his competence but also professionalism in his field. Additional results obtained from the internship implementation in the form of disciplined, honest, creative and independent in the Internship participants. The results will be better if since elementary school, children or students must have been inculcated and accustomed to be honest (Kristiawan, 2015). Based on interviews with internship participants, it shows that after internship implementation, internship participants received many benefits in the form of self-transformation to be more confident, disciplined and more respectful of time. In addition to positive results, interviews with internship participants showed that the internship implementation also had a negative impact, named learning in schools lagging behind and many tasks that came from the school after completion of internship. These negative impacts can be overcome by providing normative and adaptive teaching material in the form of modules.

Based on the results of research that has been conducted on the evaluation of the implementation of industrial work practices of student’s competency in Automotive Light Vehicle Engineering expertise at SMK Negeri 1 Penukal and SMK Negeri 1 Talang Ubi, the first conclusion the internship implementation in the context component in terms of the objectives of the Internship program. Secondly, the overall implementation of the Internship in the input components obtained from observations, interviews have all been carried out and in accordance with the Internship program, and the results obtained from the input questionnaire were reviewed from the Internship participants, the implementation curriculum, the school's vision and mission, and the objectives of expertise competency, in accordance with the Internship program activities of Automotive Light Vehicle Engineering SMK Negeri 1 Penukal and SMK Negeri 1 Talang Ubi. Third, the overall internship implementation in the process components obtained from observations, interviews have all been carried out and in accordance with the Internship program.

**IV. CONCLUSION**

Based on the results of research and discussion, there is positive implication for the implementation of the Internship, it has carried out its duties properly, through various stages of activities starting from preparation, briefing, implementation process, and monitoring of evaluation. Overall the internship implementation has been going well. The curriculum is really appropriate and applied to students' Internship activities so that the internship implementation runs smoothly, efficiently and effectively. There is always good communication between the school and industry.

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