



APPRENTICESHIP VOCATIONAL TEACHERS MANAGEMENT

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Abstract

The focus of the study is to analyze the vocational school productive teacher apprenticeship of motorcycle engineering skill package based on partnership at the Learning Center of PT. Daya Adicipta Motora (DAM) and Astra Honda Authorized Service Station (AHASS) that consists of policies, activities, funding, and monitoring and evaluation support. The purpose of this study is to describe support of policies, activities, funding, monitoring and evaluation and it can formulate hypothetical model of teacher apprenticeship. The position and importance of teacher apprenticeship are to improve teacher professionalism, the relevance, and the quality of vocational education. The research method used is a case study. Data are collected through interview, observation and documentation. Analysis of data is through data reduction, data presentation, conclusion withdrawal, and verification. The result shows: policy support of teacher apprenticeship is explicitly not available because it still refers to policy of students industrial practices; activities of teacher apprenticeship must be planned carefully; the financing of teacher apprenticeship is obtained from APBN/APBD, society, business world, and industry world; the operational finance is from vocational school; the finance of teacher apprenticeship implementation is borne by business and industry world, and monitoring and evaluation of teacher apprenticeship are conducted by PT. DAM /AHASS through pretest and posttest. Recommendation: Teacher apprenticeship needs determination of policy support from stakeholders, in order to improve the teacher professionalism.

Keywords: effectiveness, apprenticeship, partnership, professionalism.

Introduction

In the era of globalization competition is unavoidable in many ways not least in the world of education, especially in Vocational High School (SMK) education that is required to produce graduates who are ready to compete and have competencies of quality, in each competency of expertise so that they can be absorbed by the business or the industry (DU/DI) or are able to create their own jobs. A common problem in vocational high school is a shortage of productive teachers in almost all fields of study skills as presented in Figure 1.

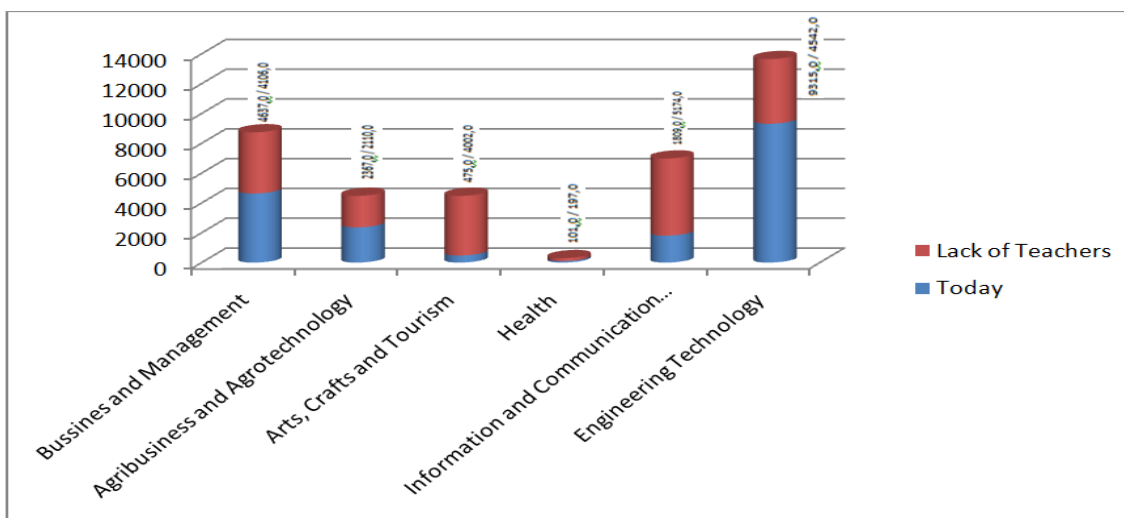


Figure 1 Analysis Earning Vocational Teacher Needs

Source: <http://gtk.data.kemdikbud.go.id/data>. NUPTK. 2011 (data processing)

SMK difficulty in creating a quality learning and relevant to the needs of DU/DI, means any improvement efforts are being made to improve the quality of education will not mean much without the support of professional and qualified productive teachers. Although it was realized that the professionalism of teachers is an essential component to ensure the quality of education in accordance with the demands of the development of science and technology, but the presence of this profession seems not currently handled comprehensively, given the complexity of the problems faced by educational institutions, civil society and the government itself. In tune with the situation Wardiman (2008, hlm.1) argues that there is “still a gap between the world of education and DU/DI (link and match).

To answer these challenges, then the best option or priority is to undertake innovation or reform the education system and training for teachers earning SMK in improving the professionalism, the one through apprenticeship teacher, especially for teachers earning vocational designed together with DU/DI, for historically according to Evans & Edwin (1978, p.36) that “vocational education is actually the development of training on the job and the pattern of apprenticeship”.

Studies conducted by Andersson, I. At.al (2015) which explores an innovation of the main factors the application of the model secondary school-based apprenticeship in Sweden, where there is a discrepancy between the government and (the Swedish Trade Union Confederation), Confederation of Swedish Enterprise is developing a curriculum-based apprentice labor market work, while Swedish initial vocational education and training establish school-based apprenticeship curriculum of vocational education.

Apprenticeships priorities for teachers earning SMK in DU/DI is an educational innovation, because that has been carried out in accordance with the structure of the vocational curriculum and has been studied by other researchers is increasing the relevance of SMK with DU/DI through Industrial Work Practices (Prakerin/Intenship)

performed by students for three months, but instead enhance the relevance of vocational and DU/DI through apprenticeships teachers have not received more attention. Apprenticeship teacher productive SMK in DU/DI is expected to run effectively so it can improve the professionalism of teachers earning SMK in carrying out their duties, especially introducing job climate and align the standards of competence in accordance with the demands of DU/DI should be owned by teachers and inform to the learners in SMK, so that the quality of learning that is relevant to the needs of DU/DI can be achieved. Lucas, Bill and Spencer, Ellen (2015, p. 11) explains that:

... The Redefining of an apprenticeship, the role of the employer in setting the standards, the simplification of the system to one or qualification standard per occupation, the freeing up of the curricula and of teaching methods, the robust testing of the accomplishment, the funding of apprenticeship training and the generation of demand and supply.

Apprenticeships for SMK productive teachers in DU/DI is inseparable from the determination of the standard of competence in accordance with needs, organizing activities, financing, and monitoring and evaluation of apprenticeship. This is in line with the results of studies conducted by Yuniarti, N. (2014) concerning vocational education teacher preparation models, that knowledge and real experience gained from apprenticeship teacher at DU/DI can provide insight to students and able to perform learning according to what needed by DU/DI.

The importance of the professionalism of teachers especially productive for vocational teachers is urgent to carry out the viability of competitiveness compensate for various changes quickly and unpredictable through various potentials. Based on the above research, hence the title of this research is “Apprenticeship Hypothetical Model Of Vocational Teachers Based On Partnership (Case Study Productive Teacher of Skills Package Motorcycle Engineering at SMK Negeri 6 Garut, Learning Center PT. Daya Adicipta Motora and Astra Honda Authorized Service Station)”.

Research Methods

The research method used is descriptive analysis through case studies with a qualitative approach. The research was conducted at SMK Negeri 6 Garut, Learning Center PT. Daya Adicipta Motora (PT.DAM) and Workshop AHASS, while the informant or person/subject who can provide information in the study include Instructor Learning Center PT. DAM, AHASS Workshop Instructor Courses, Principal, Deputy Principal Curriculum, Head of Special Employment Exchanges, Chief Technical Skills Package Motorcycles. The key informant in the study is Instructor and Teacher of Productive Skills Pack Motorcycle Engineering. Data was collected through literature studies and fieldwork using interviews, observation and documentation. The data analysis was conducted of data through data reduction, data presentation, drawing conclusions and verification.

Results and Discussion

Based on the research of productive apprenticeship vocational teacher at DU/DI is an activity that teachers really practice his ability and dig real experience was in the

DU/DI, while the placement of apprentices is the authority of the instructors in the field. Apprenticeship teachers are expected to be an important part of the learning process in DU/DI for teachers to improve their professionalism, then during the course of the apprenticeship, the teacher apprentices can utilize his experience optimally by observing and analyzing the competency standards of work he did during the apprenticeship as a material for alignment with the standards of competence delivered to students at school.

Efforts have been made by SMK Negeri 6 Garut to create the implementation of learning activities run effectively and efficiently in accordance with the purpose of learning one of which increase the professionalism of productive teachers earning the expected quality and implement tailored to the learning needs of the workforce/industry. Increasing professionalism of productive teachers is done through apprenticeship practice in PT. DAM and AHASS to synchronize and transfer knowledge between teachers and students, because the internship that was running is only undertaken by the students not the teachers.

Vocational high school as a vocational education is a part of educational system in carrying the task to prepare the individual to a job or group of jobs, forms of talent development, basic education skills, and habits that lead to the world of work. This is consistent with the results from studies of Budi Tri Siswanto (2015) showed that the learning approach that utilizes the workplace (DU/DI) for structuring the experiences gained in the workplace through on the job training and the pattern of apprenticeship contribute to the social, academic and career development of learners and provide a supplement in learning activities. Similarly, as disclosed by Evans & Edwin (1978), vocational high school is a development from the job training and the apprenticeship pattern. Similar disclosed by Lucas, Bill & Spencer. Ellen (2015) apprenticeship combines on the job experience with technical training classes. Then the core of apprenticeship as disclosed by Richard, (2012), namely the interaction between employment and education. Learning on the job can provide many elements that needed for good learning, while learning off the job can provide additional time for reflection and questions, as well as the opportunity to understand the process of learning is worth can only be obtained at the workplace.

Apprenticeship begins from seeing, studying and practicing in the garage of AHASS accompanied by an apprentice instructor. In general, the standard of competence apprentices are in accordance with the line of work they are working in apprenticeships. The apprentices can adjust to the demands of competence. See (watch) in the first week of it, study (learn) in the second week practice in the third week, although it certainly still accompanied by an AHASS instructor. Transfer of knowledge to the apprentices as an effort to improve the professionalism of productive SMK teachers. Achievements of teachers productive vocational apprenticeship, the apprentice teacher are guided, directed, and constructed, as well as the transfer of knowledge to increase professionalism by instructors who also monitored or monitored the success of the program or apprenticeship activities are carried out.

This is consistent with the method of apprenticeship that is offered by Hansman, Catherine A. (2001), namely modeling, approximating, scaffolding, self directed learning and generalization. Modeling, observation and reflection, trainees to observe the performance of an activity by experienced members to share "mechanical trick" with new members. Approximating, trainees observed by mimicking the action

instructors, through close guidance so that apprentices can articulate more clearly the action that taken by instructor. Scaffolding, Apprentice participant still in control, began operating in more detail, working or doing everything in structures that have been taught and then apprentices can be improved its ability with the help of experts. Self-directed Learning, apprenticeships Participants try real action in the real work, but limits itself to the scope of action in the field who understood. Apprentices perform the actual tasks and only seek help when needed from the experts. Generalizing, Apprentice participant realize what they have learned, trying to apply the skills and continue to grow in capability in the field. Apprentices using focus in this phase is to connect that they have learned to other relevant situations.

While Collins et al. (Feng-Kwei Wang, and Curtis J. Bonk, 2001) offers six methods of cognitive apprenticeship learning, namely: modeling, coaching, scaffolding, articulation, reflection and exploration, where modeling, modeling methods suggested by cognitive internships give students the opportunity to observe solving process from an expert. This opportunity provides students with a mental model of the overall task they are trying to learn, and shown how to use an expert domain knowledge and strategies to solve problems. In this way, students are able to see an expert in action and discuss the performance of the expert. Coaching, offers students to help in the form of instructions, scaffolding, feedback, modeling, goal-setting and reminders while they carry out tasks. Scaffolding, providing temporary support by teachers for the parts of the students task has difficulty doing. This support can take the form of advice or assistance directly. Articulation, require students to express their knowledge explicitly, reasoning or problem-solving process to problems or issues that they handle. Reflection, which externalize their metacognitive processes and thus open them for evaluation. This allows them to compare their own problem-solving process with those of experts and other students, and Exploration, invites students to tackle and solve problems independently. Typically, instructors teach establishing a common and exploration strategy. Students are then encouraged to focus on specific sub-goals in learning tasks, or even revise the common goal in order to come up with their own solutions.

Speaking about the financing of education, true also spoke about the many items of financing or cost that must be incurred related to the process of education completely and thoroughly. This understanding is important not only when it would formulate educational planning, but also to be able to understand exactly about finding sources of funding education. Sources of funds for education, including teacher apprentices obtained from APBN/APBD, society and DU/DI in this case from SMK partners. In the process of drafting the budget plan drawn up jointly with communities and school committees outlined in the budget with the principles of efficiency, effectiveness, transparency and accountability in accordance with the legislation.

Some studies that discuss the unit cost of education with each characteristics generating an evolving definition. Cost education is all kinds of expenses incurred for the provision of education. To get the compulsory program of twelve years, the fundamental thing that needs to be addressed is the increasing contribution of the government in education funding. Compulsory demanding role of the state as a provider of education services (Sri Haryati, 2012). Setting standards of education cost is a criterion for measuring the overall expenditure either in the form of money or not money as an expression of the sense of responsibility of all parties (public, parents, and

government) to the development of education for the purpose of education is achieved efficiently and effectively. The calculation of the allocation of education funding is determined by the components of educational activities include the provision of facilities and infrastructure, the learning process, the salaries of teachers and other employees. The components in the cost of education, generally counting on real costs or so called money cost, while the opportunity costs as a cost to be paid (Wiko Saputra, et al (2015).

Monitoring and evaluation conducted by PT. DAM/AHASS documented and analyzed the results poured in sheets monitoring, measurement, and the results of the evaluation itself, which states how percent level of achievement. While the overall program evaluation conducted by the school conducted by the evaluation meeting. Activities by involving many parties like Deputy Principal Curriculum, Deputy Principal industrial and community relations, Principal, Chief Technical Skills Package Motorcycles and Head of Special Employment Exchanges. All parties which is involved must submit the results of the analysis carried money DU/DI field. This is consistent with results of studies conducted by Wahyudi and Arif Susanto (2015) held that the evaluation is very important to measure the level of success of the run, whether to improve or vice versa. Evaluation is expected to be a feedback for the program that has been executed (feedback) and provide the information that is necessary to run the program in the future (feedforward). Intern evaluation of productive teachers in SMK Negeri 6 Garut in the form of apprenticeship report generation. By using the report apprenticeship, it is a reference in presenting the results of an apprentice who has done by the teacher to the principal, hereinafter to be implemented in the learning process and conduct knowledge transfer and knowledge sharing to students what ever obtained in DU/DI apprenticeship resulting synergy between curriculum , teachers, students and DU/DI.

Monitoring to the reaction of apprentices productive teacher in SMK Negeri 6 Garut is to determine what is perceived by teachers participating interns, whether it can take advantage of his experience optimally by observing and analyzing the competency standards of work he did during attend apprenticeship as a material for alignment with the standards of competence submitted to student at the school. This reaction monitoring is to determine some important thing from intern activity of productive teachers in SMK Negeri 6 Garut, from the aspect of contents to see how far the content of apprenticeship in accordance with the objectives set in terms of the diversity of the topics discussed at the learning center and workshop practice. Then from the aspect of quality materials apprentice how good the quality of the material provided, audio and visual presentations were presented, and other equipment used during an apprenticeship either in a learning center or in the workshop of AHASS. While the method of apprenticeship how appropriate the that was method given so that the apprenticeship be an important part of the learning process in DU/DI for teachers to improve professionalism.

Monitoring the intern learning of productive teacher in SMK at PT DAM/AHASS contained in SOP and conducted through the pretest and posttest per session immediately implemented an evaluation based on the type and range that has been set and the results of reviews conducted by PT. DAM/AHASS and the results submitted to the SMK. The results of a review conducted by PT. DAM/AHASS through

pretest and posttests per session submitted to the SMK. Monev of this study is to determine the extent of absorption of apprentices in the apprentice materials and the impact of the apprenticeship program in the knowledge, skills and attitude of the participants during the apprenticeship theory and practice. pretest is given at the beginning of the program and posttests conducted at the end of the program is to distinguish what is already known to the participants before the apprenticeship with what is known and dominated after the apprenticeship practice. In addition to know the seriousness of apprentices in the apprenticeship, pay attention and practice the apprenticeship material.

Behavior aspects monitoring of emphasizes on delivering the attitude, skill in apprenticeship execution. It is emphasized in each of the interviews related to a more mature attitude as an ingredient in the development of the school. Behavior aspects monitoring is intended to measure the apprentices productive teachers of SMK Negeri 6 Garut in terms of implementation and transfer of knowledge what is gained in an apprenticeship at the school. Later in this behavior aspects monitoring is to distinguish between knowing the principles and techniques by means implement it in teaching and learning. The methodology is conducted through formal testing and informal observation. Activities carried out after the completion of his apprenticeship in the period between 3 to 6 months later, and is used to determine whether the knowledge and skills that is learned properly used and measured in the workplace/school (SMK). These activities require direct contact with the interned practices and related stakeholders among principals/stakeholders in SMK.

Monitoring aspects of the results of the knowledge transfer and knowledge sharing need to be applied to the teaching and learning process. The apprentice after returning to school they are able to implement the results of their apprenticeship as evidence of an increase in the professionalism of its post- apprenticeship. Teachers who have completed an apprenticeship do the knowledge transfer and knowledge sharing. In essence, the monitoring to result aspect includes the study on the impact of apprenticeship for working groups or the entire organization. To evaluate and measure results aspects need to be done as tangible that include work result, productivity, quality, profitability and operational costs. Then intangible includes work habits, work climate, work discipline, skills, knowledge, student satisfaction and initiatives, advice, and support the strategic goal setting.

Some activities of apprentice monitoring is already in line with Catalanello and Krikpatrick (Simamora, 2015) include: reaction, learning, behavior and results. What was the reaction of the trainee apprenticeship program that followed; the extent to which trainees learn the facts, principles and approaches covered in apprenticeships; the extent of behavior in changing jobs because of an apprenticeship; and whether the final results obtained (reduced costs, reduced turnover, improved production and so forth). The opinions above boosted again by Cascio, 1993 (Marwansyah and Mukaram, 1999) that in evaluating the apprenticeship program covers the same four categories, namely reactions, how the feelings of the participants of the apprenticeship program; Learning, to what extent participants learn from what is taught; Behavior, behavior change anything in the context of the work going on as a result of the presence in an apprenticeship program; and the results, as far obtained behavioral changes associated with costs (for example, an increase in production, or the quality, a decrease in turnover

or an accident) as a result of the apprenticeship program. Under this hypothetical model offered the concept of productive improvement of professionalism of teachers of SMK package motorcycle engineering skill through partnerships based apprenticeship as effectively as figure 2.

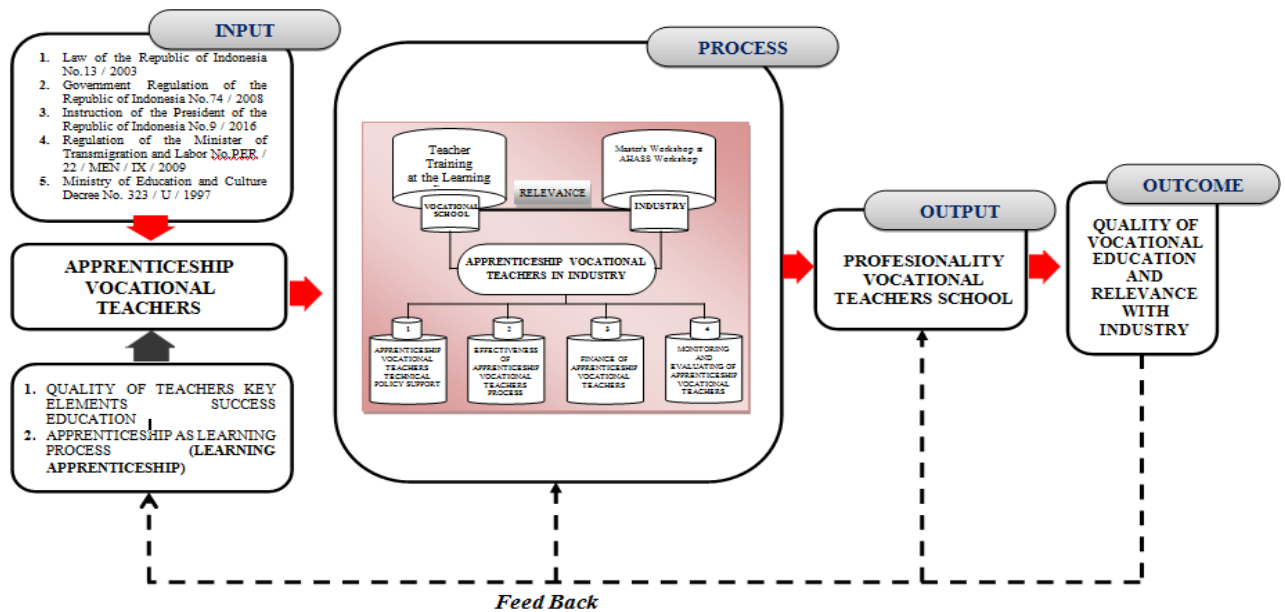


Figure 2 Concept model hypothetical apprenticeship for Productive Vocational Teacher Package Technical Skills Motorcycle-Based Partnerships

Conclusion

Support of technical policy about apprenticeship of productive teacher base on partnership in SMK Negeri 6 Garut is not explicitly specified, which is currently implemented base on apprenticeship agreement between the interns and PT. DAM, as a development from MOU for the importance of student practice. Policy support for running the apprenticeship of productive teacher in SMK is developed by partnership with DU/DI more widely one of them is teacher apprenticeship program and curriculum synchronization between SMK and DU/DI, because teachers are the most influence of the instrumental input to create process and quality education.

Apprenticeship process of the productive teacher in SMK is managed professionally begin from apprenticeship preparation stage, DU/DI mapping, socialization to the teacher, briefing for teacher who are apprenticeship participant in DU/DI which is about attitude. Then, synchronization and curriculum relevance based on need assessment of both side, it is expected that from apprenticeship activity of vocational teachers in DU/DI can produce the graduates of SMK in demanding competency standard which is done during apprenticeship as material to align competency standard of DU/DI.

Human resource development of teacher apprenticeship program is allocated from unit education of investment cost. Education cost includes investment cost,

operational cost, and personnel cost. This unit education of investment costs includes the cost of facilities and infrastructure providing, human resource development, and permanent capital. While personnel cost is education cost that must be paid by the learners to be able to follow the learning process regularly and continuously. Education cost is managerial instrument to support education as efficient, effective and productive. Education cost is only be effective if it is managed professionally. Ideal concept refers to the management principles to achieve the expected quality and also the autonomy principles as the empowering potential of education, the funds are allocated and distributed on the basis of learning needs wether facilities or personnel prosperity in the educational unit. Because the core of educational unit activity is a learning that has implications to the students result of study. This study result os students is an indicator whether the education has quality or not.

Monitoring of apprenticeship activity includes reaction, learning, behavior and result. This reaction aspect is to discover some important thing from apprenticeship activity of productive teachers in SMK, the content aspect is to discover how appropriate the apprenticeship content with the setting objectives from the term of diversity topic that is discussed in learning center and in workshop practice. This learning aspect is to discover the extend of apprentices absorption to the apprentice materials and the impact of apprenticeship program to the improvement of knowledge, skill and participants attitude during the apprenticeship theory and practice. Pretest is given in the beginning of program and post test is given in the end of program is to distinguish what is already known by the participants before the apprenticeship with what is known and mastered after the apprenticeship practice. Then the behavior aspect is to distinguish between discovering principles and techniques with the manners to apply them in the learning process. The methodology is conducted trough formal testing and informal observation. The evaluation is done after the completion of apprenticeship in the period between 3 until 6 month later, and it is used to determine whether the knowledge and the learned skill are properly used and measured in the workplace/school (SMK). While the monitoring to result aspects include the study about apprenticeship impact fro the work group or the entire organization.

professionalism improvement model of productive teacher in SMK is still in the form of cognitive training at DU/DI. While the SMK students have done the apprenticeship pactice at DU/DI, whereas teachers are the most influence of instrumental inputs to create the process and good quality of education cognitively and practically. Thus, it is important to make a development of apprenticeship model of productive teachers which is supported by a policy from the government or relevant ministries.

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