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# DEVELOPMENT SKILLS FOR GROWING THE SOCIETY'S ECONOMY THROUGH TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING CENTERS

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KEYWORDS	ABSTRACT
TVET Center Vocational Education Society's economy	High competition in economic sector is a problem for all people witout competence. With authenticating the Asean Free Trade Area (AFTA), finding vocations is too competitive because all ASEAN countries community can compete in the entire of Indonesia. This study is case study about skill development for growing society in Technical an Vocational Education and Training (TVET) Center. Qualitative approach is applied in this study with the interview, observation and documentation study as a method of collecting data. The results show a TVET Center can give a real contribution for society who needs a place for skill development. On perspective of economic development, TVET Center can be a primary medium for developing the economy of society.

#### **INTRODUCTION**

Development skills becomes a demand for the government that should make this thing be a basis for its policy to maintain the economic stability. A struggle in economic sector which is more competitive becomes a problem for incompetent society. It is further worse after the ASEAN Free Trade Area (AFTA) is authenticated which gives a chance for all Asean society to compete in vocation in the entire of Indonesia.

To solve the problem, the government improves the quality of Indonesian employment by conducting ten programs through the ministry of labor and transmigration. It is known as the four pillar of national employment in 2010 (Kemenakertrans, 2011). The program aims to escalate the quality of human resource by means of the three ways are education, jobs training, and career development. Especially on jobs training aspect, it is flexible towards the labor market needs change, besides it is having short period. Therefore it is appropriate to build the profession pillar and Indonesian labor competence.

In the year of 2006, the government, with its commitment in form of the *pro-citizen* policies on Asia's decent work as the part of long-term development plan of 2010-2020 and after signed the pact of Indonesian vocation 2011, has prioritize for vocation making and improving the productivity pass through the entrepreneur organization and labor league cooperation (Organization), 2011).

In act 13 of 2003 and ILO recommendation number of 195 implies that labor training has a social and economic function. TVET Center as the organizer of the labor training on coordinating with the ministry of labor and transmigration conducts the main role to improve the labors quality and their competitiveness. Training is necessary for human development process because it is a good way to improve the skills (Sellin, 2008).

Therefore, TVET Center, as a training and education center, becomes an important medium to solve the employment problem in Indonesia. TVET Center as a supervisor and controller here is acted appropriate with the training procedure and management to achieve the goal.

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#### **Vocational Education and Training**

Nowadays, modern people have moved to a new stage in globalization era. The people is striven for be able to face the competitive competition either in domestic or abroad. The human resource development is one of the ways to anticipate this problem. Some people understand this condition hence they try to learn continually and never think about the age (long life education) (Purnawati, 2011). It confirms the statement that education aims to produce graduates or human resources intelligent and competitive (Marini, 2015).

Vocational education in Indonesia is the innovation stressing on the human resource development based on link and match policy concretely and clearly (A. M. Zakaria, 2017). This is used as a tool to equalize the society's economy development. In Indonesia, the vocational education is organized by various institutions either formally or informally. In various countries in Asia, vocational education is relied on playing the main role in country development. Japan, South Korea, and Singapore are countries that have possessed the good vocational education implementation system (Agrawal, 2013) .

Vocational education is a part of education system that provides human to be more competitive and able to work in a working group (Faraday, Overton, & Cooper, 2011). This stresses that every field of study is a vocational education as far as the study is learned in detail and it can be a provision for the learner to enter the working world.

Vocational education is an education offering an instruction and practical experience, skills like mechanic, constructor, and another skill. The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines the vocational education as those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupation in various sectors of economic life (N. Z. Zakaria, Jizat, & Zakaria, 2014).

Besides, vocational education is an education for all people who need and want as a survival provision to enter the vocation world (Ian Cunningham; Graham Dawes; Ben Bennet, 2004). The definition implies that educational vocation is a pragmatic education ideology that makes the jobs as a reason for getting education.

Philosophically, vocational training and education is an education providing learning experiences, visual space, the effective attention, cognitive information and psychometric skills that speed up the human vocational development process. Therefore people can explore and defend by using their skills in working world. Vocational development is manifested by the cognitive development process, psychometric, and affective including human skills development from knowing stage and having working statement to the competence in life.

Based on the various definitions above of vocational education, it can be concluded that vocational education is an education that brings human from the ignorance to be competent towards the certain study where the competence becomes a goal to live the life.

# The Functions and Objectives of Vocational Education and Training

Vocational education has several functions that appropriate with the aim of national construction they are socialization, social control, allocation and selection, assimilation, and cultural conservation and promote the change for improvement. Briefly, vocational education is functioned as an "acculturation" and enculturation. Therefore, vocational education is not only adaptive but also anticipative for a change (Anwar, 2006).

Vocational education has a big role in developing economic system by utilizing the juvenile development stages and educates the student to be an entrepreneur (Aprilianty, 2012). Those matters implied that one of the vocational education benefits is as a system that can be used in development, both country and society's economy.

The aim of the training and education is to prepare human to possess a professional ability and a good competence that appropriate with their needs or even jobs they get (Mustofa Kamil, 2010). This thing points out that vocational education wishes the ability of the participant in training and education is improved and create a change the life quality.

Vocational education can support human to gain the income and contributed in the economic growth and social development of the country by giving the skill and knowledge (Zaib & Harun, 2014). Hence, vocational education is relevant for the innovation of the society development paradigm, especially in economy.

Vocational education plays the role to produce a labor that can interact with the task and people where they work. Hence, an organization needs vocational education to make people be ready in working (Hadi, Hassan, Razzaq, & Mustafa, 2015). In morocco, vocational education becomes a way to develop the competitiveness of

the labor in enterprises. Therefore, the applying of vocational education will give a big impact towards the working in lower standard (Abdelhak, Mohammed, Mohammed, Khalid, & Abderrahim, 2015).

Those experts' opinions above are very comprehensive. The training is really for gaining the knowledge, affective, and skills. Training and education are supporting activity for human who want to improve their ability in every sector either in quality or competence in every condition. Training and education is a supplement to stimulate the human knowledge practically which refers to the skills. In Indonesia, vocational training and education becomes a way to answer the problem faced now, especially in labor problem. Thus, the very important thing in conducting the vocational training and education is how to develop human resource in order to possess the skills in various sectors.

#### **Vocational Education and Training Design**

A *Training* (training and education) needs an implementation structure. This structure needs a theoretical concept which can be implemented and becomes guidance in *Training* implementation. There are several aspects having a big influence in designing *Training*, they are teacher and trainer needs in practice, participants' needs in professional management, and supports for teacher, trainer and participant in *Training* (Simona, 2015). Therefore, to design a professional *Training*, organizer need to concern towards the teacher and participant needs.

To design a *Training*, first, the organizer should know the participant mastery level in competence (Rus, Yasin, Yunus, Rahim, & Ismail, 2015). The level of competence mastery can be seen in picture 1.

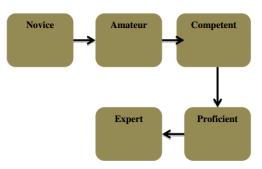


Figure 1. Skill forming process (Ridzwan, 2014)

Identifying process of forming skill is very useful as basic information to make a *Training* design. The training process includes the four stages applied by organizer in order to create a good *Training*. The stages are asses, design, deliver and evaluate (Furjanik & Trotman, 2000). The design can be seen below

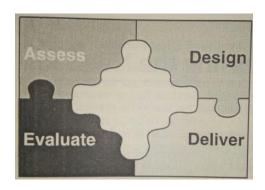


Figure 2. *Training* Design stages (Furjanic & Trotman, 2000)

From the explanation above, it can be concluded that the *training* design is a stage that must be prepared before *training* applied. The aim of this *training* is to be guidance for implementing a *training* in order to hold the *training* well and the target is achieved.

# **Vocational Education and Training Management**

The good management is needed in training as a system setting in order that every target can be achieved optimally. The achievement of training and education program can be concerned in two perspectives, based on participant and aggregative quality. The implementation of training should be done with the good management not only in planning and managing stages but also in evaluating stage (Tohani, 2009).

A training Planning program should be paid attention on the target of education program which includes the understanding of participant's characteristic, the analysis of skill which participant needs, the understanding of society's change and the teacher ability to develop the participant ability (learning to learn). After getting several stages, the newest information about training can be known well. The enough information is needed for an empowerment indicator that reflects how well the quality of training held (Ngai, Cheung, & Yuan, 2016). It implies that training management is needed for training implementation setting in order that all training hold is qualified and quality.

The scope of training management is a training program management concerning on identifying the aspect of training needs, planning the training design and determining the training methodology, managing the training material, evaluating the training and determining the training follow up (Hanrahmawan, 2010). Those are the standard aspects of training management which often use in training. In practice, training management is always involved in every training activity where the training activity becomes a sustainable cycle that consists of training need analysis, planning of training program, managing of training material, performing of training and the assessing of training. A good management is able to be formed applicative because a good concept has no value at all if it is not realized in reality. Therefore, a management should be applied in good leading style. This cause a leading style is a main factor determining the success of training organizer (Darmawan, 2016).

Based on the opinions above, it can be concluded that a management is the overall systematization towards training implementation. Because the systematization is made for a civilized society, so the management should be based on the philosophy of society. In the context of Indonesia, training management should generate a new cultural tradition concerned on vocational education which is appropriate and needed by Indonesian society like "culture-socio-science-techno" cultural. It supports the realization of skill mastery of life (life skill), learning skill for the rest of life (Sudira, 2017).

# **RESEARCH METHODS**

This study is focused on organizing program in TVET Center especially on electricity sector in Sleman Regency. This study uses qualitative approach where the interview is used to collect the data from organizer, instructors and participants of training in TVET Center. Interview is conducted in depth to reveal why the program is organized, how the preparation is managed, the process of training implementation, and the follow up after training. Besides that, the observation and documentation is used in collecting data. Hennick, et.al (2011) assures that qualitative method is used to obtain the comprehension and exploration of the new topic and the understanding of the complex problem.

In addition, qualitative method contains the assumption of philosophy giving a contextual description of the investigated object. Steps of this method are: (1) prepare and manage data, (2) read the data overall, (3) analysing and coding of data, (4) describing data coding, (5) relating theme, (6) interpreting and concluding (Creswell, 2009). The steps of study are illustrated below:.

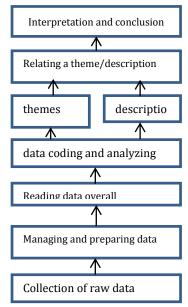


Figure.3 The process of data analysis

#### **RESULT AND DISCUSSION**

# Planning and objective of Training Implementation

TVET Center is focused on education and training for giving a skill provision to society. An educational institute has special way to hold the training. Training Supervisor of electricity states that,

TVET Center gathers saveral information for holding training through decision of "Musrenbang" (Planning and Developing Conference) which is held by every political district in entire of regency and handed it over to the labor official. Then the labor official commands TVET to organize the training. Or on the other way

based on request of the enterprises which cooperate with TVET.

On the other hand, the alumni of TVET Center assures that

Before coming in TVET, someone told me to join a Training in TVET Center. Therefore, I came and asked how to be participant.

Various clients that used the service TVET Center are taken as consideration in holding training which demanded by the public. Like societys, the company who needs worker also serve as a strong consideration.

Those points that TVET Center specifically has two ways in searching information used for decisioning to conduct a training namely (1) society needs for skills as a provision to find a job, (2) working and industry world needs. Besides, "Musrenbang" promotes the interests and prosperity of society. The result of conference necessarily promotes effectiveness considering what limited funds at village and regency rule in Indonesia.

In the context of the absorption of information as program implementation, it is possible TVET Center may be the answer for the problem of employment. This is caused the implementation is based on the parties who need each other to implement the program.

In TVET, participant of training is screened through training selection. The selection is applied to choose a participant candidate which fits on available quota. The selection is applied by test that consists of general science and skills. Besides, age, healthy and participant background become a consideration.

TVET opens the quota maximal 16 participants each classes. The quota is decided by efficiency and target to achieve the learning output. The stages of Training implementation in TVET appear below,

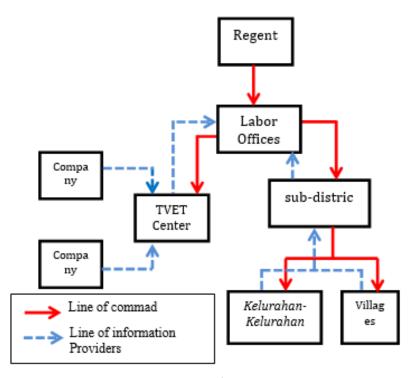


Figure 4. Communication diagram of TVET *Training* implementation

Beside training organizing, TVET Center also willing to be a partner of government in regency or even village in order to carry out the working program of government for the development of rural communities and villages. Training held outside TVET Center is called non-intuitional training. Non-institutional education and training is particularly relevant to the development program of the country that has begun to be encouraged by the government through the Rural Act directing national development through the countryside. In 2016, Sleman TVET Center becomes Training vocational organizer in Berbag and Selomartani district in Sleman Regency.

It is certainly a better value for TVET Center function as a vocational education institution in Indonesia due to the implementation of the non-institutional training, human development can be more evenly distributed. Implementation can also answer issue of spreading the information, because socialization of TVET Center sometimes does not arrive on rural communities which far from the information center. In addition, the role of TVET Center indirectly assists on the implementation of national development through the Rural Law which helps government in district and village to formulate development programs.

Thus, TVET Center as one of the institution of vocational education management in Indonesia is reliable for its implementation that has rational reasons and appropriate with the educational objectives of vocational education in Indonesia. Substantially, TVET Center can also be used as a center for the development of economic activities that pragmatically becomes the purpose of the implementation of vocational education in Indonesia.

# **Training Design and Implementation**

Training design in TVET Center consists on:

#### a. Training Design

Training design in TVET refers to standard set by "Australia Indonesia Partnership for Skills Development" institute with a curriculum management based on the core competencies of vocational electricity. A membership package consists of ten competencies required instructional time is 240 hours of lessons.

Comparison between theoretical and practical teaching load was 30% and 70%. Instructor training explains that:

Comparison of theory and practice in TVET Center and Vocational School is different. In TVET, learning is focused on practical knowledge because the purpose TVET Center is given to the provision of skills to training participants.

The statement points that learning with practical load is appropriate to be a provision. It is a TVET Center aim where the practical learning is applied as training medium or simulation towards working world which is faced after training.

The comparison is also very appropriate in keeping with the background of the participants of the training that is no longer young, so the learning paradigm adopted is pragmatic learning or the learning applied because of the needs for certain knowledge.

# b. Training Participants

Participants on TVET Center Training are for all people who want and meet requirements as training participant. The participants who meet the requirements are a society of sound mind and not limited mobility motion. Other requirements for the prospective participants of the training have minimal education in junior school. The organizer states that:

The entire communities who have Sleman ID cards are received as a participant, but we also limit the minimum educational potential participants are junior high school graduates

Taking up junior high school as a requirement for participant aims to ensure that all candidates have the basic knowledge to follow the training as knowledge of reading and writing. This is an important attention for the implementation of basic skills training that will be used as a tool to gain knowledge or skills.

On training in 2016, the training participants numbered 48 people and all the male sex. But it is quite usual given electrical skills generally are preferred by men.

The background of the participants in training is quite diverse, but alumni of SMK are the largest number of the total number of participants who follow the training as shown in the following table:

> **Table.1 Training Participants Paticipants** Persentage Quantity **Education** (%) **SMK** 30 62 **SMA** 9 19 MA 1 2 **SMP** 6 13 **S1** 1 2

The table shows that most of the participants are from vocational school (SMK). Vocational school is an institution of vocational management like TVET Center. The participants who join a training and learn in vocational school have the same aims to develop skill as a provision to find a job. But, joining training in TVET Center. after graduating from vocational school indicates the vocational school is not able to answer the desires of the students.

1

2

D3

#### c. Instructor

The instructors in TVET Center training are the instructors with civil servants status. The instructors are graduated in Electrical Engineering Education. In addition, the instructors are given the training of instructor which is regularly held by the Directorate General of Education and Productivity Development (DG Binalattas) of the Ministry of labor and Transmigration Republic of Indonesia. Training for the instructors is usually held in TVET Center. with status under the management of the Ministry of labor, at the Center of Education and Training State-Owned Enterprises or somewhere else completely are responsible by Ministry of labor and Transmigration of RI.

Training for instructors aims to upgrade the knowledge of the instructor to the development of engineering that is very dynamic and highly adaptive to technological progress.

# d. funding

Implementation of a program would require adequate funding, moreover training organized by TVET does not charge participants. TVET Center. operational costs come from various parties, as follow,

# 1) Funds from Regional Government Budget and The Indonesian Budget

Funds from the Regional Government Budget (APBD) and Indonesian Budget (APBN) are used for the general public who need the skills or the skills to find a job. The difference between the use of these funds is on a recruitment training participants. Funds from the budget intended for the general community with ID cards Sleman, while funds from the state budget devoted to the general public from all regions in Indonesia.

In 2016, the training implementation of TVET Center. uses funding from the local government through the budget Sleman Special Allocation Fund to the Department of Labor Sleman.

# 2) Individual/Third Party Support

Training organized from this fund is a training of TVET Center sponsored by another party. Parties becoming sponsors are companies of TVET working partners. Goal of education and training is also for the general public who wish to work in the company that sponsors of training. In other words, training which is implemented with that funding is used for a relationship of mutual needs and benefits (symbiotic mutualism).

In addition to the company's corporate partners of TVET Center, there is also a request for funding from other third parties, namely the Government of village or district. Implementation of this training is the working program of the Government of the village or the dstrict to deliver supplies in the form of skills to society. In education and training, BLK only serves as a training manager who asked for help to organize the work program of village or village government.

In 2016, TVET Center called upon to manage the training field of electricity in two districts in Sleman, namely Selomartani and Berbah. Both of training in two places is fully funded by the two regency organizers.

#### e. Implementation

Implementation of the training takes place every day for 40 days except Sundays. During that time, the training was organized based on the competencies that are already planned. Instructor training said:

Training that takes place on 40 days, the subject taught is appropriate with the modul that used as learning guidance. It is taken place a day for 8 hours where an hour lesson takes 45 minutes and one rest time.

The statement as if describes the same condition of learning at class. But, what instructor states:

What make training in TVET different from learning at school are the way to learn and my communication with participants.

The statement of instructor implies that he knows better the learning process which is held at school. According to that information, learning process in TVET Center. is planned especially for teaching method and

The learning process in TVET Center. is enjoyed and instructor applies egalitarian. The egalitarian of instructor during learning process gives a sign for participants to learn seriously in enjoy situation. Therefore the knowledge transfer takes place well,

A class in TVET Center, is a practice room so the delivery of theoretical subject can be applied directly. Like the participants state:

I feel understand quickly when learning in TVET Center. while learning in vocational school. In TVET Center., we can understand quickly because when we learn, we practice and see the object directly. So when the instructor explains, I am not in daydreaming about what the object like because instructor points us.

The statement indirectly confirms that learning organized by TVET Center. is more interesting because it can be easier for participants to absorb knowledge by directly presenting the object being studied. Thus, in addition to communication style very liberating the participants of the training, the learning method offered also strongly supports the achievement of the objectives of, namely to increase the skills of the training participants.

Training instructor stated that the participants were given the task in the form of projects related to the subject matter that had previously been taught. The learning model is very relevant to the learning objectives. Assignment form of the project may indirectly foster understanding or deep-overs for training participants. In addition, project-based learning also can foster a sense of responsibility for training participants in the execution of a project required special attention and measures in accordance with procedures to be able to realize optimal results.

The implementation of training in TVET Center combines theoretical and practical learning at a time. The theoretical learning is intended as an introduction to practical activities, in other words there is no separation between theory and practice. According to the instructor:

Learning process in TVET Center is on practice directly, but before that, the instructor gives few introductions so the participant can apply what the instructor explains.

This statement asserts that the combination of theoretical and practical learning that cannot be separated. Theoretical knowledge needed to understand the name, function, characteristics, and procedures for use of materials and tools studied.

Thus, the learning will feel more real and feels like the world of work. The learning model is indirectly also can be used as simulated by the training participants.

#### f. Evaluation

Implementation of learning requires an evaluation to determine the level of success or achievement of learning outcomes that have been implemented. Similarly learning at school, TVET also conducts evaluation of learning outcomes in the implementation of training. Training instructor says that:

The exam in TVET Center was conducted at the end of each competency. Moreover later at the end of the implementation of the training are also final exam, which tested all the competencies that have been taught. But if the participants want to test again to get a certificate of TVET Center, I just can give information only, because the examiners are from the TVET center

From these statements it can be said that the evaluation of learning outcomes in TVET Center was a formative evaluation and formative evaluation. Formative evaluation is used to measure the level of success and understanding towards each competency training participants was taught. In addition formative exam, TVET Center also held a final exam. This exam is a test for all of competence that has been taught comprehensively. Exam given on this form of evaluation in TVET Center project on competencies that are taught, in other words that TVET Center does not hold the theoretical exam, but the practical exam.

The test is similar to the model of learning undertaken, namely learning that emphasizes the training participants on practical knowledge or skills. The evaluation process of learning in TVET Center can be seen in the picture below.

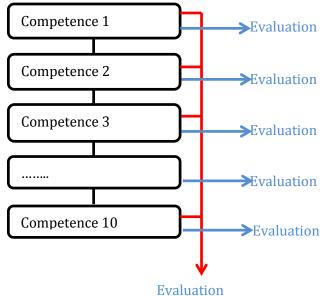


Figure 5. The evaluation of learning in TVET Center

With the implementation of the evaluation on each competency and comprehensive evaluation conducted, TVET Center thinks that it is also very helpful instructors to find out the various shortcomings of the participants either individually, or in the classical style. Classical weakness is reflected in all the participants can indirectly indicate a deficit in self-teacher or instructor. Thus, the implementation of such evaluations is also very useful to change or improve the teaching method to get better results.

#### Followed up

Implementation of a program would have to have follow-up after implementation. Follow-up was carried out to confirm the achievements that have been planned in the implementation of the program. TVET Center

After training is finished, we suggest sharing information concerned on job vacancy which is appropriate with the participant competence.

In addition to the leader, the instructor said that:

I am often called a few of them, I deliver information that I've found useful for them. The information which includes job postings, bids to follow accredited training, and so forth.

The above statement confirms that the TVET Center has a concern for the future of the training participants. BLK perform data collection and training of alumni routinely to share information related to job vacancies.

Based on the information, TVET Center Alumni generally works in various companies and some are opening their own businesses. The monitoring of the alumni is relatively easy because the number of participants TVET Center is not too much, in addition to the alumni are also constantly creating a network for the dissemination of information on job vacancies. TVET Center is not too many special programs as a follow up of the implementation of training. It naturally can be overcome by the alumni were quickly able to build a network. It is certainly not independent of the implementation plan is very mature. So the set targets can be confirmed quickly.

TVET Center with structured networking nationally sometimes conducts training certified competence. However, the provision cannot be held by all TVET Center considering the facilities used for such activities are not always present in all TVET Center. However, the training is intended in general for TVET graduates. Thus, these activities will indirectly help your participants, both administratively and skills.

Regarding follow-up, TVET is not help to much, but it is highly unusual given that only limited TVET Center position as the unit tasked from employment agencies. In other words, the overall follow-up is the Department of labor responsibility which is the main of TVET Center.

#### **CONCLUSION**

TVET Center as one of the institutions of vocational education providers in Indonesia is an institution that is able to answer the common problems being faced, namely employment issues. Regarding the reasons and the background of training implementation, TVET Center perform steps very well, ranging from the absorption of information, cooperation and determination of the field of training will be organized based on the needs of the parties concerned. Design and implementation of TVET Center training can be regarded as an alternative model for participants who are not too familiar with the learning activities. This is evident in the teaching methods used, which does not charge any theoretical learning but rather focuses on practical learning. In addition TVET Center is also very friendly for society as organized training is training that is free of charge. TVET Center is also willing to be a partner for the village or district government to be a partner in developing the community development program. The educational background of TVET Center training participants to present something very interesting, which of all participants who attend training, as much as 62% of the whole thing is a vocational graduated. SMK is one of the institutions of vocational education organizer substantially has the same purpose as TVET Center. This fact may indirectly indicate that the implementation of vocational education organized by TVET is more qualified than vocational education organized by SMK. TVET Center is a gateway for participants to career. By following the training in TVET, the opportunities to develop themselves are opened. Alumni of TVET Center can directly work in various DUDI who become partners of TVET Center with the certificate of competence or become independent entrepreneur armed. In addition, participants were also given access to follow exam competence with national standard as well as on international certification standards through programs that organized by TVET Center network in Indonesia. Thus in general it can be said that TVET is able to contribute significantly to the general

public who need skills development as a means of capital for life. In the perspective of economic development, TVET Center can also be used as road supporting the economic development of the village in view of TVET Center willing to organize vocational training based on the government's villages or district request.

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