

## Case Study of Vocational School Human Resources Development

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### ABSTRACT

The development of human resources to improve the quality of vocational secondary education in Indonesia is very important for recognizing the competence of graduates. This research aims to analyze human resource development, especially training and development at vocational schools. Qualitative case studies are used to obtain data and information. In-depth interviews and observations were carried out at SMK Negeri 2 Manado which had not yet become a center of excellence and SMK Negeri 5 which had become a center of excellence (SMK-PK). The research results show that human resource development, especially training and development, has a positive impact on the abilities of teachers. The aim is solely to improve the quality of graduates so that they suit the needs of the industrial world. Both schools have planned and implemented training and development to improve the abilities of educators. They need development so that there is a match between graduate competencies and the needs of the business world and the industrial world. Knowledge and skills develop along with technological developments and job demands. The training and development carried out by these two vocational education institutions is mostly a program offered by the government because it is related to funding.

**Keywords:** Human Resource Development, Education and training, vocational school

### INTRODUCTION

Human resources are an important element whose quality must be considered, especially in educational institutions. Along with the rapid changes influenced by technology, educational institutions can anticipate quickly, more specifically, secondary-level vocational education. The demands of the industrial world and business world can encourage vocational schools to improve the quality of human resources or teachers as educators. The open unemployment rate for vocational school graduates throughout Indonesia is 11.13 percent (BPS 2021 August). Most vocational school graduates have not been absorbed into the industrial world, so it is necessary to evaluate the competency of vocational school graduates. The Indonesian government, in this case the Ministry of Education, Culture, Research and Technology, especially the directorate of vocational education, focuses on accelerating the quality and quality of vocational schools in Indonesia. Improving the quality of vocational schools can produce superior human resources (HR).

To realize the harmony of the needs of the industrial world and schools, it is necessary to pay attention to the development of human resources. Human resource development can provide several benefits such as the knowledge, skills, and abilities needed to complete the job, which will increase a person's chances of staying where he works. HR development includes training and development, compensation, and performance appraisal resulting in high employee commitment (Rawashdeh, 2022). To complete work, someone needs to improve their abilities and skills as well as their behavior following the demands of the times. Organized activities to make this happen can be done through training and development. Nuting to MPofu (2015), employers must develop training or learning pathways for employees based on criteria such as their status, position, or job description. Training is said to be the acquisition of knowledge about skills and competencies. This has the specific aim of increasing a person's knowledge, skills and capacity, capability, performance, and productivity. Training is said to be the acquisition of knowledge about skills and competencies. This has the specific aim of increasing a person's knowledge, skills and capacity, capability, performance, and productivity (Sudhakar, 2018). Training and development increases efficiency, improves employee morale, better human relations, reduces supervision, and increases responsibility & organizational flexibility. It is said that training both physically, socially, intellectually, and mentally is very important in facilitating the level of productivity, also enhancing personal development in any organization training is the systematic development of knowledge, and skills required by employees to perform adequately on a particular task or job.

The theory underlying this research is related to increasing the knowledge and skills of researchers using Human Capital theory. This theory is used to support this research through a qualitative approach. Education is a means of improving the quality of human resources through the acquisition of new information and knowledge the absorption of experience and the application of new technology. Human resources are very important for economic growth in developing countries. Human capital can increase the ability to create value for a company through knowledge, skills, abilities, experience, personality, and creative expertise embedded in individuals (Thatrak, 2021). The first concept is human capital as an individual aspect. This concept states that human capital is an ability that exists in humans, such as knowledge and skills. This was clarified by Rastogi (2002) who stated that human capital is the knowledge, competence, attitudes, health, and characteristics possessed by humans. The second concept states that human capital is knowledge and skills obtained through various

educational activities such as schools, courses, and training. The main concept of this model is that human capital is something that is obtained through the accumulation of a certain process (Alan et al, 2008). This concept assumes that human capital does not come from human experience. The third concept views human capital from a production orientation perspective. Romer (1999) states that human capital is a fundamental source of economic productivity. Human capital is also an investment made by humans to increase their productivity (Bee-Lan Lok, 2021). Frank & Bemanke (2007) argue that human capital is a combination of education, experience, training, skills, habits, health, energy, and initiative that influence human productivity.

Several previous studies reveal that education and training improve vocational competence and teacher performance (Yuniart and Lingga, 2019; Mulyati, 2020; Sudarsono et.al, 2020; Zhixin Zhang, 2022; Vachruddin et.a., 2023). This research aims to analyze human resource development, especially training and development carried out by schools for vocational teachers.

## METHODS

This research uses a qualitative approach with a case study method. This qualitative case study is a research approach that facilitates the exploration of a phenomenon in its context using various data sources. This ensures that the problem is not explored through one lens but rather multiple lenses that allow for various aspects of the phenomenon to be expressed and understood (Baxter & Jack, 2008). This case study uses a descriptive type. Descriptive is used to describe an intervention or phenomenon and the real-life context in which it occurs (Yin, 2009).

The research was carried out from September to November 2023. The research subjects or targets were set at SMK N 2 and SMK N 5 Manado. The reason for determining these two schools was that the researcher intended to see whether the human resource development programs of the two schools would become permanent programs or not. SMK N 2 SMK is not yet included in the Center of Excellence category, while SMK N 5 is included in the Center of Excellence category. The key informant was determined by the school principal and complementary informants, the deputy principal in the field of personnel, and teachers who knew the focus of this research.

Data was collected through in-depth interviews and focus group discussions. The research instrument was a research team consisting of two people who collected data through direct interviews with the school principal as the key informant and the deputy principal and teachers as complementary informants. In-depth interviews based on previously prepared interview guides. Questions were developed from the interview guide when you wanted to get clearer data. Focus group discussions were conducted between the researcher's school principals and deputy principals in the field of personnel and curriculum. The collected data was analyzed using the interactive perspective analysis model of Miles and Hubberman (2009). This type of case study is used to describe an intervention or phenomenon and the real-life context in which it occurs (Yin, 2003)

## RESULTS AND DISCUSSION

### ***Case 1 SMK Negeri 2 Manado***

#### Training and development

##### 1. Planning

SMK Negeri 2 Manado is a vocational school with an engineering skills program, which is currently not included in the Center of Excellence Vocational School. To anticipate demand from the industrial world and the business world, schools have planned human resource development programs for teachers, especially productive teachers, according to their areas of expertise. Every year, the school plans a teacher human resource development program that will either be implemented independently or implemented by external parties. The program is carried out independently twice a year, namely at the beginning of the semester before the learning process begins. The school is planning an assessor program for skills competencies for the needs of the Skills Competency Examination for class XII students. The school plans various types of training and development, namely in-house training (IHT), industrial internships, training carried out by the Center for Teacher Development, and further studies at a higher level.

##### 2. Implementation

Curriculum change factors encourage the implementation of human resource development. With a curriculum that requires graduates to be able to work directly according to the needs of the industrial world, teachers must improve their competencies. Teachers must adapt to the demands of the industrial world so that teachers must be prepared with skills that are in line with developments in the industrial world. Apart from the curriculum, the industrial world needs factors because there are still many graduates who have not been accepted into the industrial world because their competencies do not meet industry standards. One school solution is to form an industrial school. Industrial schools aim to carry out learning activities, both theoretical and practical, like in the industrial world. Some of the teachers come from industrial practitioners. Teachers who will teach at industrial schools must first undertake an internship in industry. In this way, teachers improve their knowledge and skills first and then teach and train students to learn while working, like in the industrial world. The results of the implementation of education and training, industrial internships, and other development activities can be categorized as good. The teachers immediately put their skills into practice by transferring their skills to the students. So that students can improve their competence. The teachers immediately created a learning program based on the knowledge and skills they gained from the training site. Some teachers immediately innovate in implementing it in the classroom but are sometimes hampered by the limited tools the school has. Limited equipment for practicum students means that not all students in the class can immediately do/practice to produce their work because they have to take turns. The results of implementation can be seen from the activities in the Teaching Factory (TEFA) unit.

The work produced by students can be seen in the Tefa unit. Students can already produce in the Tefa unit. Apart from the Tefa unit, students also produce in production units. If there is an order from the community or the community needs student services, they work on it in their respective production units. Finance is obtained from production results in the production unit, and Tefa is used for operational costs of the unit. A portion is given to the students who worked on the project. Knowledge and skills received from training and internships are directly transmitted to students. Teacher human resource development has a positive impact on teachers, students, and schools. For

teachers, the positive impact is the higher their competence. Teachers are increasingly enthusiastic about their work. Usually, after completing the training, the teachers propose new things in learning. The higher the teacher's competence, the more impact it will have on students. Students will increasingly master their field of expertise if they are already in society, students can generate income through the services or products they produce. The impact on schools means that school performance will be better with teachers who are competent in their respective fields and who will produce competent graduates so that schools can contribute to graduates who do not increase unemployment in society.

### 3. Evaluation

The impact of implementing training and development provides changes in teacher behavior. For example, after returning from behavioral training, teachers become more enthusiastic about teaching. Especially if students respond enthusiastically to new things implemented in class. Teacher behavior prefers to follow the latest developments following the needs of the industrial world. Teachers who have participated in development several times want to make changes in the school to fellow teachers, both in the way they think and act. The positive thing that appears is that each skills program wants to compete to produce skilled graduates.

The main obstacle with this HR development program is that teachers will undertake internships or training outside the region. This means they will leave their teaching duties for a while. The students will be temporarily replaced by other teachers who may not be productive. Another obstacle after teachers have completed improving their competence in implementing for students is that the supporting facilities for practice are inadequately provided by the school.

Based on data collected in qualitative form, it can be concluded that the Human Resources Development Program, in this case teachers, has been planned and implemented every year. Even though the school has not yet been designated as a PK Vocational School, it still thinks about and pays attention to the development of Human Resources. This is solely to improve the quality of graduates so that they suit the needs of the industrial world. Moreover, SMK Negeri 2 Manado focuses on engineering.

## ***Case 2. State Vocational School 5 Manado***

### Training and development

#### 1. Planning

State Vocational School 5 Manado has been a Center of Excellence Vocational School since 2022 in the Visual Communication Design skills program. The main goal in developing teacher human resources is so that the industrial world can absorb the graduates produced by schools. Teachers play a very important role in producing graduates who are competent in their respective fields of expertise. Moreover, this school has been entrusted by the government to become a Vocational School Center of Excellence, which has been implemented since 2022. All teachers must have their competence improved so that students can also have knowledge and skills following the needs of the industrial world. Sometimes, vocational school graduates cannot be absorbed into the world of work because the

graduates are not ready to work in the sense that the knowledge and skills they possess are not in line with what is expected by the world of work.

The school plans a teacher human resource development program every year, especially after being designated as an SMK-PK. Even though only one expertise program is a center of excellence in terms of human resource development, it applies to all teachers, including vocational teachers, general teachers, and Guidance and Counseling teachers. Development planning is focused on training and workshops. Further studies are included in the planning, but more responsibility is given to the existing teachers because, at this school, most of the teachers have continued their studies to the 2nd degree level (Master of Education). All skills programs or majors at this school are allowed to develop skills according to their respective fields. The department head's proposal for what skills development program will be developed is then reported to the deputy head of the school for human resources. The field of personnel that summarizes the planning of HR development programs. Programs that have been planned and implemented every year include Training, Teacher internships in the world of business and industry, Guest teachers as assistants for centers of excellence (from universities), Workshops, in-house training at the beginning of each semester, and Dissemination of driving teachers. The teacher human resource development program is planned both by the school and by the government, all for harmony and matching of the curriculum to implement the Teaching Factory. All teachers are involved, regardless of whether vocational teachers, general teachers, or guidance and counseling teachers are also included in the HR development program.

One of the factors that encourages schools to plan and carry out various human resource development activities is the desire to advance the school so that it can produce graduates who are competent in their respective fields. Schools want to improve the quality of graduates so that they do not contribute to creating unemployment in society. The factor of increasing teacher competency and expertise has become a concern of the school principal, so this school has formed a Special Job Fair (BKK) unit. BKK is one of the school's innovations whose aim is to prepare graduates to obtain information about the availability of job opportunities. At the same time, this unit carries out tracking of graduates whether, after graduating, they have got a job or started their own business. Another thing that encourages the HR development program is the plan that each subject teacher will implement a block system in learning, namely, the world of practice will be more emphasized. If this is the direction, then every subject teacher must have adequate abilities and skills so that they can educate and teach students to be able to produce work according to their respective departments. Every semester, the school holds a student work title for each department. Through work titles, each expertise program displays its works so that it can compete positively with each department or expertise program. If the teacher is competent, he will produce students who have skills that can be used as capital to work.

## 2. Implementation

The implementation of HR development programs is carried out by the Center for Teacher Development; there are also those from the world of business industry and schools. In-house training is carried out twice a year by the school. Other training and workshops are carried out by schools using budgeting from expertise programs with Center of Excellence status. Up to 30 trainings and workshops a year. The school brings in instructors and resource persons from the Ministry of Education and Culture, the world of business and industry, Vocational Universities, and driving teachers. Teachers

who are in the Visual Communication Design expertise program, which is a center of excellence, are required to take part in training. The advantage of SMK-PK compared to non-PK is that training programs can be planned and implemented independently by involving experts in the field of expertise, which is the center of excellence. The budget is allocated from the center of excellence. The benefits of a school that has a center of excellence in terms of human resource development have an impact on other teachers even though they are not in the Visual Communication Design department.

The implementation of training, workshops, and internships can be said to be successful by seeing that teachers have more knowledge of relatively new skills following the needs of the world of work. They realized the results of developing teacher abilities and capabilities by establishing a production unit and a Teaching Factory (TeFa) unit. The center of excellence at the school encouraged the creation of several Teaching Factory units as a place for students to practice producing work. All planned programs can be implemented, and the results satisfy the teachers. The more often teachers add competence, the more students' skills will improve. For example, the Visual Communication Design department, which is a center of excellence, has carried out production processes, including designing billboards and invitations, and has printed billboards, although it is still limited to small sizes. If the order is large, they collaborate with a digital printing business for the printing process.

The impact of the results of human resource development for teachers is that they are even more enthusiastic about teaching because they are more confident and more professional in carrying out their duties. Collaboration between senior and junior teachers in implementing learning in the classroom. This is an initiative from each department to collaborate with subject teachers. Especially if junior teachers have not yet mastered the material in practical learning. Especially teachers who are fresh graduates from universities. The advantage of collaboration between senior and junior teachers is that both can share knowledge and skills, and senior teachers can guide junior teachers. Because in terms of teaching experience, it can be used as input for junior teachers. The impact for students can be felt, namely that students can receive the knowledge and skills provided by the teacher through theoretical and practical learning. Students can produce according to their respective fields of expertise. Moreover, this school has a variety of specialty programs, although it can be admitted that the facilities available are relatively limited. Students cannot be in one practicum class at the same time but must take turns. However, students have felt a positive impact from the results of training and workshops from teachers.

## 2. Evaluation

Changes in teacher behavior after participating in a development program are demands for teachers. Teacher behavior in thinking and acting must change towards being professional and responsible. Morally, teachers whose knowledge and skills have been improved should be able to take responsibility for transferring them to students so that the quality of graduates will increase. Behavior that wants to progress must be followed by concrete actions toward students and the school. Changes in attitudes and behavior are monitored by the principal, starting from discipline in coming to school, compliance with teaching schedules, and providing real work to students. When students hold a work degree, it will be seen in each department whether the results achieved or not have changed. If teachers start to be responsible for themselves, it will have an impact on students, not only on the products or services produced, but their character will also change. Change is one of the goals of the teacher human

resource development program. If teachers have made changes in carrying out their profession to the maximum, there will be multiplication both for other teachers and for students. This teacher can become a leader of change in his school environment.

Obstacles faced during the implementation of training programs, workshops, internships, dissemination, IHT, students learning are not guided by teachers or other teachers who may not be subject must replace teachers who are taking part in the training. Teachers who take part in training outside the school and the area have to leave their classes temporarily and are replaced by other teachers, so sometimes their classes are empty. Only assignments are given to students, meaning students learn on their own without teacher guidance. There were also other teachers replaced but not vocational teachers because the ones who were upgraded more often were vocational teachers. Another solution taken by teachers who take training outside their area is to prepare time for online learning even though it is not routine and outside school hours.

Based on the data collected from informants, researchers can conclude that the development of human resources in vocational education is very important to producing competent graduates. Human resource development at SMK Negeri 5 as a whole goes through a planning, implementation, and evaluation process. What was planned was carried out. The results of the implementation are monitored and evaluated to see whether there are changes in the attitudes and behavior of teachers who have participated in the development program.

## **Discussion**

The research results show that training and development are really needed by schools, both those that have not yet entered the center of excellence and those that already have the title of the center of excellence. Training and development have a positive impact on teachers' abilities. Knowledge and skills develop along with technological developments. Therefore, vocational schools need to plan and implement them to anticipate the needs of the industrial and business world. This follows the human capital theory that knowledge and skills are important assets in organizations (Becker, in Bee-Lan Lok, 2021). Education and training are the most important investments in human resources. (Becker, 1993). He differentiated between general training and special training. General training is a type of training that increases productivity by the same amount in the company where it is provided and in other companies. In contrast, specialized training only increases productivity in the company where it is provided. Under certain conditions, this definition implies that the company will not pay for general training. As a person's productivity increases at another company, alternative wage offers will increase. If employers providing general training wish to retain workers, alternative wage offers must be met so that the training investment cannot be recouped. In connection with the results of research at two State Vocational Schools in Manado City, it can be classified that general training is funded by the Ministry of Education and Culture, and special training is training designed by the school itself and financed by the school. For example, training called industrial internships and training by inviting speakers from industry and universities are special training. According to Becker (2009), when a person's productivity increases, the wage offer will increase. In the case of the two schools, the wage increase offer has not been implemented. Human capital is "knowledge, skills, competencies, and attributes contained within an individual facilitates the creation of personal, social and economic prosperity. Becker's human capital theory classifies training into general training and special training.



He suggested that companies pay special training costs because this will increase employee productivity in the company. Human capital theory also states that individuals and society obtain economic benefits from investment in human resources in the form of formal education, informal education, and job training. Seeing the importance of training and development to increase a person's abilities and skills, school principals should continuously plan and carry out training both at school costs and by competing to take part in training carried out by external parties. Skills and knowledge are important elements in forming high-quality staff (Nur Shafini Mohd Said, 2022)

Training and development plays an important role and has become one of the key aspects in improving employee performance in organizations and making experienced people do their jobs effectively (Sudhakar, 2021) Training has implications for productivity, commitment to work, and personal development. A person's work productivity can be achieved if he has the knowledge and skills that support his work. A person's work productivity will have an impact on organizational effectiveness (Kit Brooks and Fredrick Muya Nafukho, 2006).

Other research concludes the need for effective employee training and development systems and processes to achieve increased employee performance, thereby increasing the provision of basic services to the community (Mthokozisi Mpofo, Clifford Kendrick Hlatywayo, 2015) In the work environment, the provision of training and the availability of career development opportunities are perceived as benefits for employees (Muleya et al., 2022). An effective way for vocational teachers is that professional development and sustainable development depend on teachers having an understanding and cooperative attitude with others, exchanging experiences, attending training, and developing according to school needs (Gerelmaa & Nyamsuren, 2023)

Quality teacher training and development can be achieved from quality programs, and highly qualified facilitators will lead to improved employee performance and, consequently, improved service delivery. Training and development is not only a routine program but it must also be considered that the training material must be of high quality so that it can have an impact on the quality of a person's work.

## CONCLUSION

Human resource development in vocational schools has a role in increasing the competence of educators and will have an impact on the competence of graduates. The industrial sector must be a partner who can collaborate effectively. Vocational education development must be in line with industrial development and needs. Training and development is one of the school's strategies for aligning the needs of the industrial world with the competencies of graduates. Training and development need to be planned by the school, both as intervention from the government and innovation from the school itself. It is recommended that Vocational High Schools should not wait for training and development programs from the government but instead implement them on their initiative according to the needs of the business world and the industrial world. It is recommended that future research increase the research focus on career development and compensation for educators.

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