

### Management of Infrastructure in Improving the Quality of Vocational High School Graduates

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Abstract - The dissertation with the title "Management of Infrastructure in Improving the Quality of Vocational High School Graduates" focuses on case studies conducted by Vocational School in an effort to improve the quality of Vocational High School graduates. So far the management of facilities and learning infrastructure that standardized Laboratory of Honda motorcycle business techniques with disadvantages is less running to the maximum that causes the absorption of graduates to the Dudi still low. While the demands of real needs are increasing competitiveness through the quality of graduates who are ready to work, where the output and outcome graduates are priority. The general purpose of this study is to determine and analyze the Management of Facilities and Infrastructure in Improving the Quality of Vocational High School Graduates. The specific objectives to be achieved at the end of this research are: (1). Knowing and explaining the facilities and infrastructure management program in improving the quality of Vocational High School graduates; (2). Implementation of facilities and infrastructure management in improving the quality of Vocational High School graduates; (3). Problems faced in implementing the management of facilities and infrastructure in improving the quality of Vocational High School graduates; (4). Future demands related to the management of facilities and infrastructure in improving the quality of Vocational High School graduates; (5). Future improvement steps in the management of facilities and infrastructure in improving the quality of Vocational High School graduates. In order to get a comprehensive picture of this, research was conducted with a case study approach at Vocational High School Lentera Bangsa 1 Karawang, Vocational High School Lentera Bangsa 2 Karawang and Vocational High School Rismatek Karawang with qualitative methods. Based on the interpretation and analysis of the research results, the general conclusion is that the facilities and infrastructure management program has improved the quality of graduates which has an impact on the quality of graduates who are absorbed in the world of work, including: (1). Facilities and infrastructure management program in improving the quality of Vocational High School graduates who have the knowledge, skills and work ethic in accordance with the demands of the job market; (2). Implementation of management of facilities and infrastructure together carry out learning and assessment together in educating, training and providing qualified and work-ready workforce; (3). Problems encountered related to disproportionate number of industries and lack of practical equipment; (4). Future demands related to collective agreements in producing vocational graduates who are ready to work and competitive according to the demands of DUDI; (5). The next improvement step is to open foreign investment as a step to increase DUDI and complete school facilities and infrastructure.

Keywords: Management Facilities and Infrastructure, Dudi, Quality of Vocational School Graduates



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### 1. INTRODUCTION

The 1945 Constitution of the Republic of Indonesia Article 31 paragraph (3) states that, the Government shall endeavor and implement a national education system that enhances faith and piety, as well as noble character in the context of the intellectual life of the nation which is regulated by law. In Law Number 20 of 2003 concerning the National Education System in Article 3 states the objectives and functions of national education, namely:

"National education aims to develop the potential of students to become human beings who believe and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens. And national education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation's life, aiming at developing the potential of students to become democratic and responsible citizens so that they become human beings who believe and fear God Almighty, have noble character, healthy, knowledgeable, capable, creative, and independent"

The reality is that education in Indonesia, especially formal education, is still felt to be unable to solve the problems faced by the Indonesian people, there is even an impression that education actually adds to the nation's problems. One of the educational problems faced is the low quality of education at every level and unit of education. Various efforts have been made to improve the quality of education including training and increasing teacher potential, procurement of books and teaching tools, improvement of educational facilities and infrastructure, education costs and quality of school management. However, the results obtained from several indicators show that the quality of education monitored has not shown a dignified and equitable quality. Most schools, especially in areas still show poor conditions (Depdiknas, 2013).

One of the evidences of the low level of education in Indonesia can be seen from the United Nations Development Program report on the Human Development Index (HDI-UNDP) in 2019 placing the quality of education at 111th out of 189 countries in the world. The low quality of Indonesian education is reinforced by the results of the 2019 Political and Economic Risk Consult (PERC) survey which puts the quality of education in Indonesia at the bottom, which is 10th out of 14 countries in Asia.

Education in Indonesia is a strategic vehicle for efforts to develop all the potential that exists in every individual Indonesian society. Improving the quality of education is a development goal in the field of national education and is an integral part of efforts to improve the quality of Indonesian people as a whole. In the Law of the Republic of Indonesia number 20 of 2003 Article 3 concerning the National Education System states that:

"National education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation's life, aiming at developing the potential of students to become human beings who believe and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent. and become a democratic and responsible citizen"



UNESCO (United Nation on Educational, Social and Cultural Organization) states that the four pillars of education focus on: (1) Learning to know, (2) Learning to do, (3) Learning to be, (4) Learning to live together. The essence of the four pillars is that education is able to produce humans who master science and technology and education is also able to apply it in life for the welfare of society.

Vocational secondary education is part of the sub-system of education in Indonesia, in accordance with the law of the Republic of Indonesia number 20 of 2003 concerning National Education, article 15 which states that "Vocational education is secondary education that prepares students to work primarily in certain fields". Based on the explanation above, it shows that the main orientation of Vocational High Schools (SMK) graduates is to work or entrepreneurship independently according to the vocational field they are engaged in. Thus the education system that is built is oriented to the system that is developing in the business and industrial world (DUDI), so that the learning model is at least close to the real atmosphere and conditions that exist in the business world and the industrial world.

Vocational High Schools (SMK), especially SMK assisted by PT. Astra Honda Motor (AHM) has implemented a "link and match" program for the World of Education and the Industrial World by combining the nationally applicable learning curriculum at SMK Lentera Bangsa 1 Karawang, SMK Lentera Bangsa 2 Karawang and SMK Rismatek Karawang with the Honda Motorcycle Business Engineering curriculum (TBSM). The advantage of schools that get a curriculum program is equivalent to the education given to mechanics AHASS (Astra Honda Authorized Service Station) or Technical Training Level One (TTL 1). This program is expected to have vocational graduates who have increased competence and are ready to use in the industrial world and graduate students TBSM Vocational Schools can directly work on the AHASS network or become entrepreneurs.

Vocational High School (SMK) has the most striking difference between SMA and SMK is the portion of theory and practice. At the high school level, theory tends to be more than practice, while at SMK, practice is far more than theory. The SMK level also focuses on preparing students to face the world of work. The subjects studied are also different, the subjects in high school are more general in nature, while the subjects studied in vocational schools are more specific because of the existence of these majors, namely productive subjects (specifically according to the expertise program or student major). Studying in vocational schools is almost like learning activities in college because it is more focused on one particular field specifically and in depth.

In this regard, vocational education facilities and infrastructure must be managed properly. Educational facilities and infrastructure are also one of the elements of educational management that have an important role in the teaching and learning process, educational facilities are things that should not be ignored. Educational infrastructure is also used to facilitate students' understanding of the material concluded by using appropriate educational infrastructure in the program of teaching and learning activities becomes more effective and efficient. With the educational facilities and infrastructure, teaching and learning activities will be more meaningful and quality and fun.



This is in line with research conducted by Pambayun (in the Journal of Physics: Conference Series, 2020) with the title: "Vocational High School Infrastructure Conditions and The Challenges in Facing The Era of Literation and Industrial Revolution 4.0". The results showed : (1) There are still infrastructure facilities at SMK TKR in Yogyakarta that has not met the demands of Indonesia Minister of Education Regulation No. 40, 2008 and the demands of the Curriculum 2013 syllabus; and (2) Infrastructure and facilities at SMK TKR is very difficult to follow the technological advances responsively, because technology is developing very quickly. Collaboration with the industry and the use of technology information in the learning process are important to resolve the infrastructure limitation in SMK TKR.

It is difficult to deny that private vocational education facilities and infrastructure are in fact still incomplete. Therefore, in order to improve the competence of graduates or the quality of graduates, the principal, besides trying to gradually complete the facilities and infrastructure, also utilizes the learning possessed by the Business / Industrial World (DUDI) through Industrial Work Practices (PRAKERIN). In the Decree of the Minister of Education and Culture Number 0490/1992 concerning the cooperation of SMK with the Business and Industrial World (DU/DI) which aims to improve the suitability of the SMK program with the needs of the world of work which is mutually beneficial With the Minister of Education and Culture's policy a joint policy was formulated between the Minister of Education and the General Chair of Kadin. Vocational education as part of the National Education System (Sisdiknas), is one solution to these various labor problems. Act. No. 20 of 2003 concerning the National Education System, that vocational education is secondary education that prepares students especially to work in certain fields. This is also supported by Permendiknas No. 22 of 2006 concerning Standards of Content for Primary and Secondary Education, that SMK/MAK Education is held in the form of Dual System Education (PSG) which includes policies on industrial work practices (prakerin). This policy continues despite changes in the government system from centralization to decentralization, including in the management of education. All of that can run with the creativity of schools and even departments in developing the implementation of PSG. It is undeniable that internships cannot run without PSG.

Based on a preliminary study conducted through interviews with the principal of SMK Lentera Bangsa 1 Karawang, Dr. Ahmad Jaelani, M.M., Principal of SMK Lentera Bangsa 2 Karawang Mr. Maryana, M.Pd., and Principal of SMK Rismatek Karawang Mr. Abdul Muti, S.Sy. regarding the lack of facilities and infrastructure in an effort to improve the quality of learning for vocational students, which in general regarding the management, utilization, maintenance and procurement of infrastructure facilities are still not optimal. Management of educational facilities is a process for procuring and supervising a particular goal in education. If there is no management, the procurement, use, and maintenance of infrastructure facilities will be less noticed by the educational institutions. Lack of learning facilities and infrastructure so that it has an impact on the weak quality of graduate competencies. On the other hand, it is difficult for PRAKERIN to accept prospective internships/PRAKERIN because many schools want to carry out PRACTICE at the same time.

Based on the explanation above, the author intends to carry out a dissertation research with the title Management of Facilities and Infrastructure in Improving the Quality of Vocational High School



Graduates (Qualitative Studies at Lentera Bangsa Vocational High School 1 Karawang, Lentera Bangsa Vocational High School 2 Karawang and Rismatek Karawang Vocational School).

### 2. RESERACH METHOD

This research with the main topic of Facilities and Infrastructure Management in Improving the Quality of Vocational High School Graduates uses a qualitative approach, in line with the objectives to be achieved, namely presenting a comprehensive picture of Facilities and Infrastructure Management in Improving the Quality of Vocational High School Graduates in Karawang Regency. Through this approach and procedure, an in-depth explanation of an integrated system will be presented regarding efforts to implement Integrated Quality Management with the emphasis on the implementation of Facilities and Infrastructure Management through PRAKERIN in Improving the Quality of Vocational High School Graduates in Karawang Regency.

Data was collected by means of interviews and observations at the research site, which was also strengthened by the review of written documents. The researcher in this case acts or functions as an instrument for collecting data. Another thing related to research, the authors put forward several types of data and their sources, namely: (1). Interview (words and actions); (2). direct observation or observation; (3). Documentation or photos and literature study.

In this section it is stated that in qualitative research the main data collection techniques are observation, interviews, documentation and a combination of the three, known as data triangulation. Through informants/respondents or subjects at SMK Lentera Bangsa 1 Karawang, SMK Lentera Bangsa 2 Karawang and SMK Rismatek Karawang.

### 3. RESULT AND DISCUSSION

## Infrastructure Management Program through PRAKERIN in Improving the Quality of Vocational High School Graduates

In an effort to quality orientation, vocational education institutions must focus on improving the quality of schools, namely the quality of graduates. This can be done by collaborating or managing facilities and infrastructure with companies/industry in accordance with expertise in the field of competence. Of course, the management of these facilities and infrastructure strengthens the quality culture by carrying out guidance from industries such as SMK assisted by PT. Astra Honda Motor (AHM) and PT. Power Adicipta Motora so that the quality of graduates of the Honda Motorcycle Business Engineering (TBSM) expertise program become graduates who are ready to work with good graduate quality.

The survival of an organization is largely determined by students. Therefore, organizations must always be oriented in increasing student satisfaction. The steps in increasing student satisfaction include: (1). See the complaint/suggestion box (the result is an empty suggestion box means there are no complaints or suggestions); (2). Strive to meet the requirements set by students; (3). Communicating the wishes and expectations of students to all organizational personnel; (4). Conduct monitoring and measurement to determine student satisfaction



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The opinion of some people who give the stigma that entering SMK seems to be a second choice must be scrapped. Even students from junior high school have to get information about the relevance of the world of work through vocational education institutions. Building national character so that students have a tenacious entrepreneurial spirit and have a high work ethic and are grown from an early age in order to create an entrepreneurial spirit. To create these ideal conditions, as the Ministry of Education and Culture hopes, it is time for the government to build a job-oriented education system in the face of global competition. It is very good if the stakeholders start thinking about establishing a number of Job Training Centers (BLK) in each Regency/City in order to facilitate vocational graduates who have skills that are still lacking. So far, the establishment of BLK has not been evenly distributed and only focuses on big cities. Indonesia can learn from Malaysia, which manages its workforce by doing internships at BLK to prepare a ready-to-use workforce. Thus, if the government consistently prepares skilled and educated prospective workers, the establishment of BLK in the Regency/City is an urgent need.

Junaedi (2014) stated that the results of the study showed that the results of the analysis obtained the following research results: (1) The facilities and infrastructure that are already owned in schools can be said to be complete, so in general the facilities and infrastructure that support the practice of vocational subjects in Automotive Mechanical Engineering Department of Vehicle Engineering Mild (TKR) in State Vocational Schools in East Lombok Regency on average are classified as having met the ratio of the number of students to support the ideal implementation of teaching and learning activities in implementing the 2013 curriculum; (2) There are several practice media that are not ideally owned in schools, including: Timing light Diesel, AC Trainer, and EFI Card Stand. because the equipment is quite expensive, so the school has not been able to prepare it; (3) The ideal facilities and infrastructure are facilities and infrastructure that are sufficient for the ratio of students.

Ariyani (2018) states that the results of the study indicate that the management of facilities and infrastructure in improving the quality of education at SLB Buah Hati Jambi City includes planning, organizing, implementing, and monitoring activities. In planning activities, the principal holds school coordination meetings, determines school programs, and determines the need for educational facilities and infrastructure. Organizing Facilities and Infrastructure (Organizing) includes setting the organizational structure for managing facilities and infrastructure, division of work tasks/job descriptions, setting tools and practice materials, and setting practical activities. Implementation of Facilities and Infrastructure Management (Actuating) in the form of procurement, maintenance and elimination of facilities and infrastructure. Control of Facilities and Infrastructure (Controlling) is carried out by taking an inventory.

## Implementation of Infrastructure Management through PRAKERIN in Improving the Quality of Vocational High School Graduates

In this case, vocational education institutions form a team to synergize with the business/industry world (DUDI). Then convince the DUDI that SMK graduates are qualified graduates free of defects and free of complaints so that SMK graduates can produce outputs that are ready to be accepted in the business/industry world (DUDI).

Vocational education institutions promote their graduates both through print media, electronic media and digital/online media so that the media can easily identify looking for work. In Vocational Schools, they provide good services to students, teachers and educational stakeholders. services to meet the needs of the company is very important. This is in accordance with the vision of the Vocational High School which is to form quality graduates who are qualified and ready to work as a form of excellent service for the Vocational High School to the business/industry world (DUDI).



In realizing the management of SMK facilities and infrastructure with DUDI, namely by making it happen by forming a work team starting from the teacher to organize and prepare students so that their work results are tested and of good quality. the team consists of the principal, vice principal and teachers appointed to manage facilities and infrastructure with DUDI. Then, to explain the total quality management in SMK, especially in the PRAKERIN activities, it is using the input, process, output and outcome approach.

Meanwhile, the growth of domestic industry is no longer significant with the number of SMK graduates every year. Industrial growth follows an arithmetic progression, while vocational graduates who are ready to enter the workforce follow a geometric progression. Thus, PRAKERIN abroad must continue to be empowered, through this PRAKERIN program, it will slowly change the image of sending TKI which so far only sends Household Assistants, but later on sending TKI graduates from Vocational High Schools who have reliable skills so that they change from TKI to the Household Assistant class to become Laborers. Expert.

Pahlevi (2016) stated that the results of the study showed that the planning of facilities and infrastructure at this school was carried out through the Waka Sarpras staff including the Head of Graphic Preparation Study Program and the Head of Graphic Production Study Program. Planning for facilities and infrastructure begins with a needs analysis carried out by the Head of Study Programs of the two majors and then submitted to the Deputy Head of Sarpras. Procurement of facilities and infrastructure is carried out based on the needs analysis proposed by the two Heads of Study Programs, then recapitulates which needs are prioritized. The use of facilities and infrastructure is carried out in accordance with standard operating procedures (SOP). Different items used, different procedures are carried out. The deletion is done because the item is seriously damaged and cannot be repaired and if it is repaired, the repair will cost a lot of money, so it is better to buy a new one than to repair it.

Fauzi (2019) stated that the results of the study showed the process of managing facilities and infrastructure as well as supporting the teaching and learning process to improve the quality of education. Processing of facilities and infrastructure is based on procedures that include: planning, procurement, distribution, use, maintenance, inventory and elimination. Implementation of management of facilities and infrastructure at SMK Multazam Gisting has been very good because facilities and infrastructure are supporting facilities that can support the process of activities in any organization including those in the education unit. the reference by looking at the results obtained by distributing teacher and student questionnaires with the same results is very good because Multazam Gisting Vocational School applies a strategy to improve the quality of education.

Hartoni (2018) states that the results of research at SMK Al-Idara show that the implementation of infrastructure management in SMK is carried out optimally and the process of management of educational infrastructure in SMK is carried out sequentially, starting from planning procurement, procurement, maintenance, inventory and elimination so that it is always in a neat, orderly and orderly condition.

Hidayati (2012) stated that the results of research at SMK Negeri 1 Buduran Sidoarjo indicate that (1) Planning and procurement of facilities and infrastructure aims to determine the needs of existing facilities and infrastructure from each work unit so that the plan can be continued with procurement that can support the learning process. Planning is carried out at the beginning of each new academic year by looking at the results of the evaluation in the previous year, this plan is listed in the quality targets and work program of the Deputy Head of Sarpras by involving the ISO team and related parties. (2) Distribution of facilities and infrastructure by distributing goods to each work unit according to the needs and expertise of each. Distribution with a direct or indirect system. (3) The use and maintenance of tools



and rooms in accordance with work instructions, rules and usage schedules, those responsible for the use and maintenance of each shall be submitted to the inventory of each skill competency. Maintenance is carried out routinely or periodically. (4) Inventory of facilities and infrastructure is handled by the Inventory Administration Staff which includes recording activities in the Inventory Book and recording recapitulation for 1 year. (5) Elimination of facilities and infrastructure is carried out on goods with damaged conditions and meet the requirements for elimination. Each work unit attaches a proposal for deletion to the central inventory officer. The proposed deletion to the relevant agency is not easy because there are many agencies that propose deletion so it takes time.

## Problems faced in Infrastructure Management through PRAKERIN in Improving the Quality of Vocational High School Graduates

The presence of the PSG (Dual System Education) concept and its correctional measures have not succeeded in encouraging teachers to make changes in learning in schools. Teachers have not adequately implemented innovations in the preparation of teaching materials, management of teaching and learning processes and evaluations that are truly in accordance with the demands of the PSG program. The conditions needed to implement PSG as in its ideal concept have not been properly prepared. Teachers interpret PSG as a transfer of students to industrial work practices (PRAKERIN), the more and faster students get industrial work practices is interpreted as an indicator of the application of PSG's success in schools. Schools do not yet have guidelines that integrate learning activities in schools in accordance with the demands of PSG as a new concept known as "link and match". Teachers do not yet have a guide on how to compile teaching materials, carry out the teaching and learning process and conduct assessments according to PSG's demands. Teachers have not been able to link teaching materials in the classroom with their application in the industrial world. Likewise, when students return from PRAKERIN, teachers have not been able to relate teaching materials to what students have experienced in the industry, teachers also have not fully carried out learning activities with a competency approach. Teachers do not yet have adequate commitment in implementing PSG in schools. Some teachers are even less serious about the presence of PSG and some are still questioning the commercial benefits that can be obtained from the implementation of PSG. The principal does not provide support to teachers in implementing PSG in schools and is left to run PSG on their own. But the principal considers that the skills and understanding of teachers about PSG are sufficient. The principal has not given maximum treatment for efforts to implement reforms through PSG.

Factors supporting practice in schools are still like the situation before the presence of PSG. The teachers questioned how to carry out practical assignments whose number of hours increased while the available practice support materials with the original number of hours were still not sufficient. So this has an impact on reducing the amount of work that students can do at school. The learning climate in schools is an obstacle in providing basic vocational skills to students. There are old habits in schools, namely scheduling standardized subjects for teaching days based on the availability of teachers, learning climate in class (teachers tend to pursue curriculum targets) and practical climate in school workshops. Where the teacher allows students to work in an inappropriate way with the quality of the work that is finished and the time is not right. Overall, the learning climate in schools is not yet conducive to equipping students with the knowledge and skills, physical endurance and work attitudes as required by the industrial work culture that should underlie PSG.

The industrial work practice (PRAKERIN) in the context of PSG has not received maximum support from the industry, because the presence of practical students is still assessed based on the usefulness in a short time from an economic point of view. Industrial work practices (PRAKERIN) as part of industrialbased training carried out through experience working in production lines, are highly dependent on the



available industrial work processes and are fully controlled by the instructors (workers) who serve as supervisors. In reality, the learning process in industry is generally not pre-designed like learning in schools. However, following an incident that happened to occur in the process of working on a production job. Class X who do not have basic skills are avoided from being involved in production work because it is considered a burden on the company so they only get the task of observing.

There is still no synchronization between programs in industry and programs in schools. The two activities are still running separately and efforts to link learning in schools with training in industry have not been a priority in the implementation of PSG in schools and industry. Ensuring that as many students as possible are absorbed in PRAKERIN is the main agenda in the implementation of PSG in schools. Besides that, teachers still feel foreign to the industrial world, on the other hand, instructors or practice supervisors feel that teachers do not need them.

The problems found in the management of facilities and infrastructure at this Vocational School are the emergence of problems that come from within (internal) and from outside (external).

1. Internal problems

The problems he faces are principal management and leadership, not much experience, rules or policies in facilities and infrastructure management, limited facilities and infrastructure management budget, syllabus development materials and types of activities in facilities and infrastructure management activities.

2. External problems

The problems faced are the limited number of existing DUDIs that are still regional in nature, even only a few are at a national level, the breakthroughs made by the management of facilities and infrastructure with limited sources of funds, communication that is less routine in discussing and evaluating the management of facilities and infrastructure. Generally this is done by simply doing PRACTICE, the families of students who are less well off in terms of financing, do not rely enough on BOS funds from the government and student tuition fees.

Safingudin (2020) stated that the results of the study showed that Facilities and Infrastructure Management in improving the quality of graduates at MTs Negeri Triwarno Kutowinangun Kebumen was carried out by (1) Planning for Facilities and Infrastructure (Planning), namely madrasa coordination meetings, determining madrasa programs, and determining the need for facilities and infrastructure. educational infrastructure. (2) Organizing Facilities and Infrastructure (Organizing) includes setting the organizational structure for managing facilities and infrastructure, division of work tasks/job descriptions, setting tools and practice materials, and setting practical activities. (3) Direction of Facilities and Infrastructure (Actuating) in the form of procurement, maintenance and elimination of facilities and infrastructure. (4) Control of Facilities and Infrastructure (Controlling) is carried out by taking an inventory. The use of facilities and infrastructure should be adjusted to the needs in order to obtain benefits from such use. All madrasah residents should take advantage of the facilities and infrastructure owned by the madrasa so that they are not wasted just as decoration because basically all madrasa facilities are held to provide the best service to all madrasa residents. The maintenance of madrasa facilities and infrastructure is not only left to the officers who handle them, but the contribution or proactiveness of all madrasah residents is also needed so that all programs planned for madrasa maintenance can be realized properly for the continuity of the education process in madrasas.

Pujiastuti (2018) stated that this study aims to find out about the implementation of educational facilities and infrastructure management, problems in implementing educational facilities and infrastructure management, and efforts to solve problems in implementing educational facilities and infrastructure



management at SMK Negeri 1 Karanganyar. Using a qualitative approach, the results show that the functions of educational facilities and infrastructure management that have been carried out at SMK Negeri 1 Karanganyar are planning, procurement, storage, maintenance, inventory, and deleting educational facilities and infrastructure. The problem of warehousing management is infrastructure, namely the lack of storage to keep the commodities before they are invested and distributed, the lack of storage to keep unused items before they are destroyed, the use of consumables is not in accordance with procedures, the management of book storage in the library is not optimal. Solutions for human resources problems assigning tasks for administrative affairs and picket students, training for human resources, doing division of labor; To complete warehousing management, there are several ways, including: Reconstructing the Administrative Affair Room by utilizing the empty space in the new building, and utilizing the empty room in the new building.

## Future demands related to the management of infrastructure through PRAKERIN in Improving the Quality of Vocational High School Graduates

Facing the flow of changes in science and technology (IPTEK), the flow of modernization and industrialization is very influential on the management program of facilities and infrastructure. The progress of science and technology (IPTEK) in the future is a challenge for vocational education institutions to accelerate improvements in the quality of management of facilities and infrastructure with DUDI. In terms of changes in science and technology (IPTEK) as carried out by the current government with changes to the 2013 curriculum based on character and competence, which are parameters to determine goals and competencies that will be more specified.

Future improvements in the management of facilities and infrastructure are one of the efforts that will make Vocational Schools increasingly trusted by DUDI so that later DUDI can recruit from the results of facilities and infrastructure management with Vocational Schools. The factors that are part of the strengths and challenges need to be calculated and controlled more specifically in the implementation of the facilities and infrastructure management program.

To face the rapid development of science and technology (IPTEK), improving the quality of graduate students is very important and non-negotiable. This must be realized for teachers and education personnel through school programs that continuously make changes and quality improvements are carried out in the teaching and learning process organized by the school.

Kurniawati (2013) states that the results of the study show that the management of facilities and infrastructure used by SMK N 1 Kasihan-Bantul, especially in productive subjects is standard management. Procurement of facilities and infrastructure is carried out at the end of each year by analyzing the necessary needs by establishing a plan for the period of one semester or one year ahead by taking into account the funds owned. Maintenance of school facilities and infrastructure is carried out with daily maintenance, periodic maintenance, and maintenance that is preventive in nature. Elimination of school facilities and infrastructure, until now there has never been a deletion of goods.

Sinta (2019) states that the results of the study show that the planning of facilities and infrastructure is carried out by applying for assistance to the government, the procurement of facilities and infrastructure is carried out in accordance with the planning of facilities and infrastructure, the use and maintenance of facilities and infrastructure in accordance with the needs of students, inventories in accordance with the provisions data every year, the deletion of goods is done conditionally based on the condition of the goods, the inhibiting factor for the management of facilities and infrastructure is the lack of funds, while the supporting factor is that the madrasah facilities are adequate, based on the results of this study it is



recommended that the madrasah focus more on the placement of facilities for students, so that users of these facilities feel comfortable.

Trisnawati (2019) stated that the results of research at SD Negeri Lamteubee- Aceh Besar showed: (1) Facilities and infrastructure planning, namely by analyzing all school facilities and infrastructure in advance; (2) Procurement of facilities and infrastructure to collect inventory data for data in advance and to find out the inventory; (3) Utilization/usage is used by all school members, teachers and all school students, the use of educational inventories must also be effectively monitored by parties appointed by the school; (4) Maintenance of facilities and infrastructure is very much needed by teachers and students so that the goods owned by the school are always under supervision and well maintained; (5) Elimination of infrastructure facilities by making a letter of recommendation to the Education Office so that related parties can make an official report for the abolition.

## Future Improvement Steps in Infrastructure Management through PRAKERIN in Improving the Quality of Vocational High School Graduates

Anticipatory steps in improving the management of facilities and infrastructure to improve the quality of SMK graduates, the problems found in the management of facilities and infrastructure at SMK with DUDI arise from within (internally) and from outside (externally).

To overcome internal problems faced, among others, preparing for better management and leadership of school principals, leadership in the context of TQM is participatory leadership, in TQM's view, which includes seeking input from empowered teachers or DUDI parties, considering these inputs, and acting on input. that.

To overcome the external problems faced, among others, the limited existing DUDI regional in nature, to overcome this in an anticipatory manner, the team made a breakthrough made by the management of facilities and infrastructure, namely preparing sufficient sources of funds, improving communication with DUDI and evaluating the course of facilities management. and infrastructure, preparing for the maximum implementation of PRAKERIN, optimizing financing by budgeting for PRAKERIN funding needs from the School Operational Assistance (BOS) and SPP funds from students.

In accordance with the mandate of law number 20 of 2003 concerning the Purpose of Vocational Education, where Vocational Education Institutions / Vocational Schools are obliged to prepare human resources who are ready to enter the world of work and become productive workers. Vocational high school graduates are ideally a ready-to-use workforce, in the sense that they can directly work in the business/industrial world (DUDI). The problems of Vocational Schools today are generally related to the limitations of equipment, facilities and infrastructure, the low cost of practice and a learning environment that is not similar to the world of work. This condition can lead to unpreparedness of graduates in entering the world of work. The unpreparedness of SMK graduates in doing work in the world of work is a dilemma for the user industry because the industry must provide education or training within the industry to prepare its workforce. Thus the industry must allocate extra costs beyond production costs. Actually, the industry and the school have their own limitations in forming and getting a ready-to-use workforce. The school has limitations in financing and providing a learning environment. Meanwhile, the industry has limited educational resources to form the required workforce. Therefore, to get SMK graduates who are ready to use, both parties should make efforts or at least involve the industry to participate in developing training programs.

Through the facilities and infrastructure management program, especially the improvement of industrial work practices (PRAKERIN) to improve relations between the world of education and the industrial



world so that there is a link and match with better coordination, especially in terms of on the job training which leads to advanced training and job preparation Graduates of the Honda Motorcycle Business Engineering (TBSM) Vocational School can immediately work according to the needs of the job market. Improvement of SMK management to be able to work together and synergize with the world of work in improving the quality of graduates and to give public confidence in vocational education to support the potential of qualified and ready-to-use vocational graduates in the industrial world.

In carrying out anticipatory steps to deal with problems and future improvement steps in seeking to increase the competence of vocational students, school principals always provide encouragement, motivation and provide the widest opportunities for teachers to improve their competencies either through training education (DIKLAT), seminars, workshops, internships and continuing education to a higher level. Meanwhile, according to the teacher, in addition to what was stated by the principal, the principal also evaluates programs and follow-up programs that have an effect on increasing student competence.

Asnita (2018) states that the results of research at SMK Negeri 3 Padang show that overall maintenance activities have not been carried out optimally. This is due to: (1) Difficulty in distributing funds used for maintenance activities; (2) inadequate library space; (3) lack of bookshelves in the library; (4) schools do not use control cards as proof of responsibility. Maintenance activities are carried out through periodic, continuous and preventive maintenance. Meanwhile, the solution taken is to repair itself if any facilities or infrastructure are damaged, trying to create and increase the number of bookshelves in the library room. By carrying out optimal maintenance activities, it can expand the economic value and maximize the utilization of facilities and infrastructure in schools.

Yulius (2020) stated that the results of research at SMK Negeri 1 Singkawang, showed: (1). planning for facilities and infrastructure programs has been made by the student department to develop facilities in school activities; (2) The use of facilities and infrastructure is carried out in accordance with the learning needs of each teacher and is regulated and monitored in an orderly manner; (3) Supervision of facilities and infrastructure has been carried out by the principal directly (4) Reporting has been carried out periodically by the vice principal for student affairs to the principal; (5) The obstacles faced in facilities and infrastructure are financing for both procurement and maintenance. Based on the results of the study, it is suggested the following: (1) The principal is expected to optimize the supervision of all planned activities so that the predetermined objectives can be achieved; (2) It is necessary to involve the community in the procurement of financing and maintenance of facilities and infrastructure; (3) Teachers, administration are expected to be involved in the management of facilities and infrastructure.

Firmansyah (2018) states that the results of research at SMAS State University of Malang, show that the facilities and infrastructure in schools have met the standard, the use of infrastructure in the learning process must still be improved, as a continuous improvement in service quality to meet the reality and expectations for customers.

### 4. CONCLUSION

The conclusions from this research are:

1. General Conclusion

There is a common goal through the management of facilities and infrastructure through PRAKERIN in Improving the Quality of Vocational School Graduates (Case Studies at Lentera Bangsa Vocational High School 1 Karawang, Lentera Bangsa Vocational High School 2 Karawang and Rismatek Karawang Vocational School). The facilities and infrastructure management program for educational institutions (SMK) with the business/industry world (DUDI) has improved the quality of graduates absorbed in the world of work or industry. The existence of facilities and



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http://www.jiemar.org

e-ISSN : 2722-8878

infrastructure management focuses on students' practical learning activities with practical laboratories in accordance with Honda's laboratory standards and upgrading students to do PRAKERIN at PT. AHM can help SMK graduates to be ready to work and make it easier for companies to find qualified candidates for employment. Management of facilities and infrastructure through PRAKERIN has an impact on improving the quality of SMK graduates in terms of input, process, output and outcome

### 2. Special Conclusion

- a. Facilities and infrastructure management program through PRAKERIN in improving the quality of SMK graduates, this program is realized in quality learning based on AHM Honda standardization equipment and supported by industrial work practices (PRAKERIN) at PT. AHM so that the quality of SMK graduates is competent and has the skills needed in the business world/industrial world.
- b. Implementation of management of facilities and infrastructure through PRAKERIN in improving the quality of SMK graduates, the results of the learning program based on standardized facilities and infrastructure of PT. AHM, especially in the Honda Motorcycle Business Engineering (TBSM) expertise program, was implemented through an MoU with PT. Astra Honda Motor and Main dealer PT. Daya Adicipta Motora in link and match both in educating, training and providing qualified and ready to work workforce according to the demands of the world of work or industry.
- c. The problems faced in the management of facilities and infrastructure through PRAKERIN in improving the quality of vocational graduates are problems related to the management of facilities and infrastructure regarding the number of industries that are not proportional to the number of vocational students who need a place to practice and the lack of practical equipment, school facilities and infrastructure that need to be used. upgraded with the latest equipment and technology due to the rapid development of motorcycle technology.
- d. Future demands related to the management of facilities and infrastructure through PRAKERIN in improving the quality of SMK graduates, need synergy in conducting direct practice which is not just a collective agreement made so that the quality of SMK graduates becomes ready to work and competitive according to the demands of the latest industrial world.
- e. Future steps for improvement in the management of facilities and infrastructure are through PRAKERIN in improving the quality of SMK graduates. The next step for improvement in the management of facilities and infrastructure is the opening of foreign investment by the government as a step to increase the number of DUDI and complete school facilities and infrastructure. This aims to increase the insight of educators, education personnel and students about the competence of graduates who have cognitive, affective, psychomotor aspects, have noble character and have good faith in accordance with the needs of the business/industry world (DUDI).

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