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Feasibility Study of the Facilities and Infrastructure for the Class XI Light Vehicle Engineering Practice as a Prepareredness for the Implementation of MBKM in Vocational Schools

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ABSTRACT
The Merdeka Belajar Kampus Merdeka (MBKM) initiative, which was introduced by the government, is connected to research on the viability of Light Vehicle Engineering workshop facilities and infrastructure at SMK Negeri 2 Kotanopan. The MBKM initiative seeks to liberate schools from rules that restrict creativity and innovation in the development of high-quality courses that are pertinent to business demands. Similar to that research, the goal of this one was to gather information on the infrastructure and facilities that would be appropriate for the Light Vehicle Engineering workshop at SMK Negeri 2 Kotanopan based on the circumstances there. This is in line with the MBKM concept, which places a strong emphasis on competency-based learning that is pertinent to the demands of the workplace. This study employed a descriptive methodology that included observation, interviews, and documentation. The productive teachers who majored in light vehicle engineering served as the subjects of this study, while the facilities and infrastructure found in light vehicle engineering workshops served as the study's objects. To assess the level of viability of the facilities and infrastructure at the Light Vehicle Engineering workshops at SMK Negeri 2 Kotanopan, comparisons were performed with current standards using data from the workshops at SMK Negeri 2 Kotanopan. The findings indicate that while the infrastructure has a feasibility level of 93.75%, which is highly possible, the facilities have a feasibility level of 56.87%, placing them in the viable group. In order to meet the goals of the MBKM program, which aims to enhance the quality of education and its relevance to industrial demands, the facilities' viability still has to be enhanced.

Keywords: *MBKM, Feasibility, Facilities and Infrastructure, Light Vehicle Engineering Practice Workshop.*

1. INTRODUCTION

The purpose of SMK is to prepare students to become; Work as workers according to their skills and abilities [1]; Create job opportunities and work independently [2]; Continuing higher education [3]. Given the objectives of vocational schools, the implementation of vocational schools must be carefully planned to produce skilled graduates. According to Undlng Education System Actln National No. 20 of 2003, Vocational High Schools (SMK) stipulate that education national functions develop kalpasitals daln form a proper personality and national civilization in the framework of education for the life of the nation, to develop the potential of students to become human beings who fear and believe in God Almighty, have noble character, have health, knowledge, ability, creativity, independence and become citizens democratic toolresponsible [4], [5].

Along with the increasingly complex demands of the industry, vocational schools are required to produce graduates who have skills ready to go directly into the world of work [6]. Therefore, practical learning facilities in SMKs are very important in preparing students to enter

the world of work [7]. However, there are still obstacles in optimizing practical learning facilities at SMK, such as limited space, equipment, and quality of instructors [8].

The Merdeka Learning Campus Merdeka Program (MBKM) is an Indonesian government program that aims to improve the quality of higher education by giving universities freedom to manage curriculum and learning facilities [9]. However, even though this program focuses on higher education, there needs to be synergy between the MBKM program and practical learning facilities at SMKs to improve the quality of education and prepare students for the world of work [10].

In the context of the relationship between practical learning facilities at SMK and the MBKM program, it should also be noted that SMKs can act as feeders for tertiary institutions implementing the MBKM program [11], [12]. In this case, SMKs can prepare their students to continue their education to tertiary institutions that implement the MBKM program, so that they can develop deeper skills and knowledge in accordance with industry demands.[13], [14]. In this case, evaluation of practical learning facilities in SMK is very important to find out to what extent the quality of these facilities meets the standards set in the MBKM program.[15]. Therefore, it is necessary to improve the quality of practical learning facilities in SMK so that students can gain quality practical experience and in accordance with industry demands [16].

One solution to improve the quality of practical learning facilities in SMK is to increase collaboration between SMK and tertiary institutions that have implemented the MBKM program [17, p. 2014–18], [18]. Thus, SMKs can take advantage of the experience and resources of these universities in developing practical learning facilities at SMKs [14]. In addition, SMKs can also obtain information about technological developments and the latest industrial demands from universities that have implemented the MBKM program [19]. However, it must be acknowledged that the implementation of the MBKM program in tertiary institutions is still uneven and there are still obstacles in its implementation. Therefore, there is a need for support from various parties, including the government and industry, in implementing the MBKM program more broadly and effectively [10].

In addition, the MBKM program can also have a positive impact on the development of practical learning facilities in SMKs. In this context, tertiary institutions that implement the MBKM program can act as mentors for SMKs in developing practical learning facilities that meet industry standards and the demands of the MBKM program [13]. The synergy between practical learning facilities at SMK and the MBKM program can improve the quality of education and prepare students to enter the increasingly complex world of work [20]. There is a need to evaluate and improve the quality of practical learning facilities in SMKs so that students can gain quality practical experience in accordance with industry demands [21]. In addition, there is a need for collaboration between SMK and tertiary institutions that have implemented the MBKM program to take advantage of the experience and resources of tertiary institutions in developing practical learning facilities at SMK [22]. The synergy between practical learning facilities at SMK and the MBKM program can provide great benefits for developing the quality of education and preparing students to enter the world of work [23]. In this context, it is necessary to evaluate and improve the quality of practical learning facilities in SMKs as well as cooperation between SMKs and universities that have implemented the MBKM program. In addition, there is also a need for support from various parties in implementing the MBKM program more broadly and effectively in tertiary institutions [24].

2. RESEARCH METHODS

The research conducted on the Feasibility Study of Practicum Facilities for Class XI Students of Light Vehicle Engineering at SMK Negeri 2 Kotanopan aims to find out whether the practicum facilities at the school meet the standards to support student competence in the world of work. In this study, a descriptive method was used using primary and secondary data sources [25]. The primary data source used is practical equipment claimed and observations at the TKR workshop, while the secondary data source is documentation or inventory data that has been made by the school.

The information gathering strategy in this study used several techniques, namely observation, documentation, and interviews. In data analysis, descriptive statistical analysis method is used, which is designed to analyze data by explaining the data collected without drawing generally accepted conclusions. The results of calculations in data analysis use a percentage scale, where the amount available is divided by the number of needs and then multiplied by one hundred percent [25].

In the context of the relationship between practical learning facilities at SMK and the Merdeka Learning Campus Merdeka (MBKM) program, this research can provide an overview of the condition of practicum facilities at SMK as one of the determining factors for the success of the MBKM program [20]. In this case, this research can provide information regarding the level of feasibility of practicum facilities at SMK Negeri 2 Kotanopan, which can be used as material for evaluation and improvement in the development of practical learning facilities at SMK. In addition, this research can also be used as evaluation material for universities implementing the MBKM program in preparing their students to enter the world of work.

This research on the Feasibility Study of Practicum Facilities for Class XI Students of Light Vehicle Engineering at SMK Negeri 2 Kotanopan can provide important information in developing the quality of practical learning facilities at SMKs and improving the quality of education for SMK students. In addition, this research can also contribute to the development of the Merdeka Learning Campus Merdeka (MBKM) program by providing an overview of the level of feasibility of practicum facilities in SMK. Thus, the results of this study can be used as a reference in the development of practical learning facilities in SMK and the implementation of the MBKM program in tertiary institutions.

The feasibility formula in this study is based on percentage calculations, which are explained in the last sentence of the paragraph, with the calculation process being carried out by dividing the available amount by the number of needs and then multiplying it by one hundred percent.

$$Appropriateness = \frac{\text{Score obtained}}{\text{Ideal score}}\ x\ 100\%$$

The criteria for achieving eligibility consist of four levels, namely: very feasible 76% - 100%; worth 51% - 75%; not worth 26% - 50%; very not worth it 0% - 25%.

In this case, the amount available refers to the facilities and infrastructure in the school, while the number of needs refers to the minimum requirements needed to carry out practicum activities optimally. After the available amount is divided by the number of needs, the result will be multiplied by one hundred percent to get the eligibility percentage. With this formula, researchers can determine the feasibility of facilities and infrastructure in schools in carrying out practicum activities. The higher the percentage of eligibility obtained, the better the facilities available at the school. Conversely, if the percentage of eligibility is low, it is necessary to repair or add facilities to meet the required needs.

3. RESULTS AND DISCUSSION

A. Results

1. Completeness of Light Vehicle Engineering Workshop Practice Facilities

Seen Based on observations, the need for useful practice facilities is divided into 4 types, namely: 1) Trainer Units and Engine Stands, 2) Tool Boxes, 3) SST/Measurements, and 4) Supporting Tools. The basic standard requirements for TKR practice facilities refer to the SMK verification instrument, yeslng directs the vocational practice tests administered by the National Education Standards Agency (BSNP). In the tool box section there are 16 kinds of tools in the workshop, in the SMK N 2 Kotanopan workshop there are eight tools that are classified as very appropriate with a percentage level of 125%, four tools are classified as good with a percentage level of 100%, and four tools are classified as less feasible considering the number of tools available does not match the number that has been set. So overall, the feasibility level of the tool box reaches 96.09%. The tools can be seen in the following table 1.

Table 1. Toolbox Feasibility

Information:

Tool's name	Amount		Feasibility Assessment			
	Min	Exist	1	2	3	4
ToolBox						
Open End Wrench	8	10				✓
Combination Wrench	8	10				✓
Screw Driver Plus	8	10				✓
Minus screw driver	8	10				✓
Ironhammer	8	10				✓
Plastic Hammer	8	3		✓		
Combination Plier	8	10				✓
Side Cutting Pliers	8	10				✓
Feeler Gauges	8	3		✓		
Pipe Shock Lock	8	8			✓	
Vernier calipers	8	5			✓	
Platinum Miser	8	10				✓
ruler	8	8				✓
Droppers	8	8				✓
Worklight	8	8				✓
Test Lamp	8	0	✓			

1 = Inadequate (if facilities and infrastructure are not available in the workshop or damaged)
2 = Inadequate (if the facilities and infrastructure exist but are not in accordance with the standards set)
3 = Decent (if the facilities and infrastructure exist and are in accordance with the standards set)
4 = Very Eligible (if the number of facilities and infrastructure exceeds the standards set in good condition)

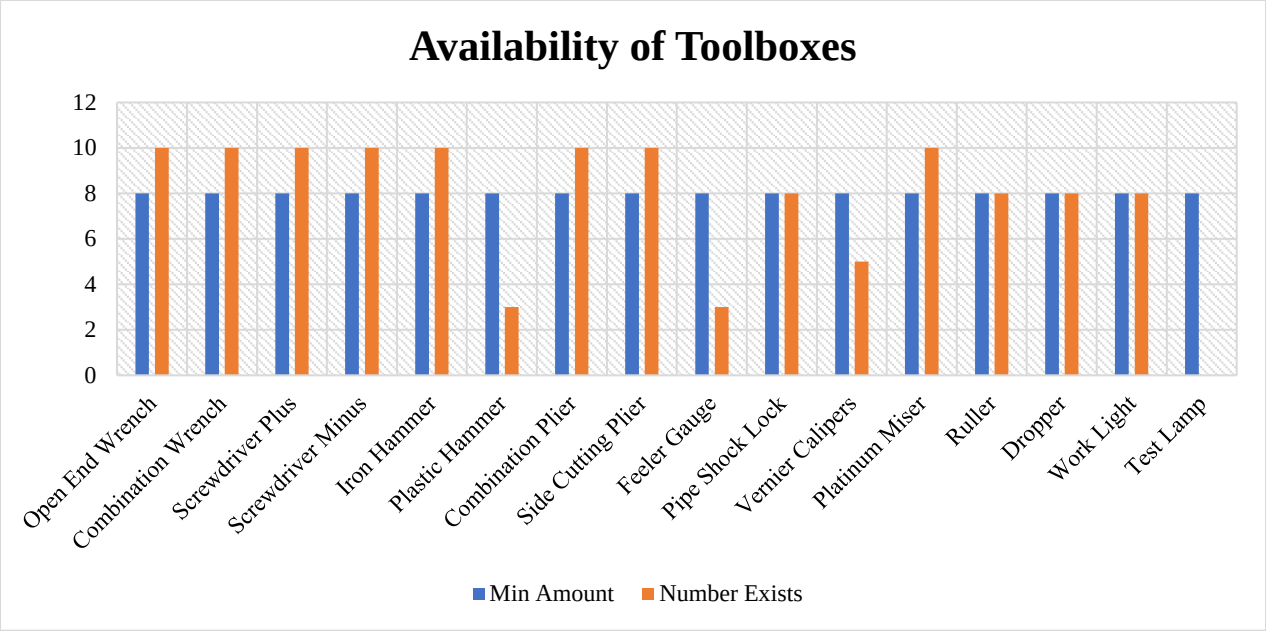

Figure 1. Graph of the availability of the Tool Box for the practice of Light Vehicle Engineering

In the measuring instrument section there are 23 tools contained in a workshop. There are two tools that fall into the proper category at the TKR workshop at SMK N 2 Kotanopan with a percentage of 100%. There is one measuring tool included in the very decent category because the number contained is more than the existing standard, thirteen tools are included in the less feasible category because the number of tools does not meet the standard or the percentage is <100%, and there are seven tools that are not in the TKR workshop SMK N 2 Kotanopan. The overall average percentage of measuring equipment is still below 100%, namely 41.65%, which is included in the less feasible category. The measuring instruments can be seen in the following table 2.

Table 2. Appropriateness measuring tools

Tool's name	amount		Feasibility Assessment			
	Min	Exist	1	2	3	4
SST / Measuring Instruments						
Torque Wrench	6	2		✓		
Avo Meter	6	3		✓		
ammeter	6	3		✓		
Engine Tuners	2	0	✓			
thermometer	4	2		✓		
Outsider Micrometer	10	5		✓		
Inside Micrometer	10	0	✓			
Dial Indicator (0-5mm)	8	2	✓			
Stethoscope	4	0	✓			
Radiator Cup Tester	2	1		✓		
Oil Filter Wrench	2	2				✓
Punch Gaskets	4	2		✓		
Spark Plug Checker Tool	4	0	✓			
Timing Light	4	4				✓
Dwell Tester/Tachometer	4	2		✓		
Test Injectors	2	3				✓
Hydrometers	4	2		✓		

Tool's name	amount		Feasibility Assessment			
	Min	Exist	1	2	3	4
SST / Measuring Instruments						
Coil Testers	4	0	✓			
Leveling Table	8	4		✓		
Steel Ruler	4	2		✓		
Test Nozzles	5	0	✓			
Tension Testers	4	0	✓			
Cylinder Bore Gauge	2	1		✓		

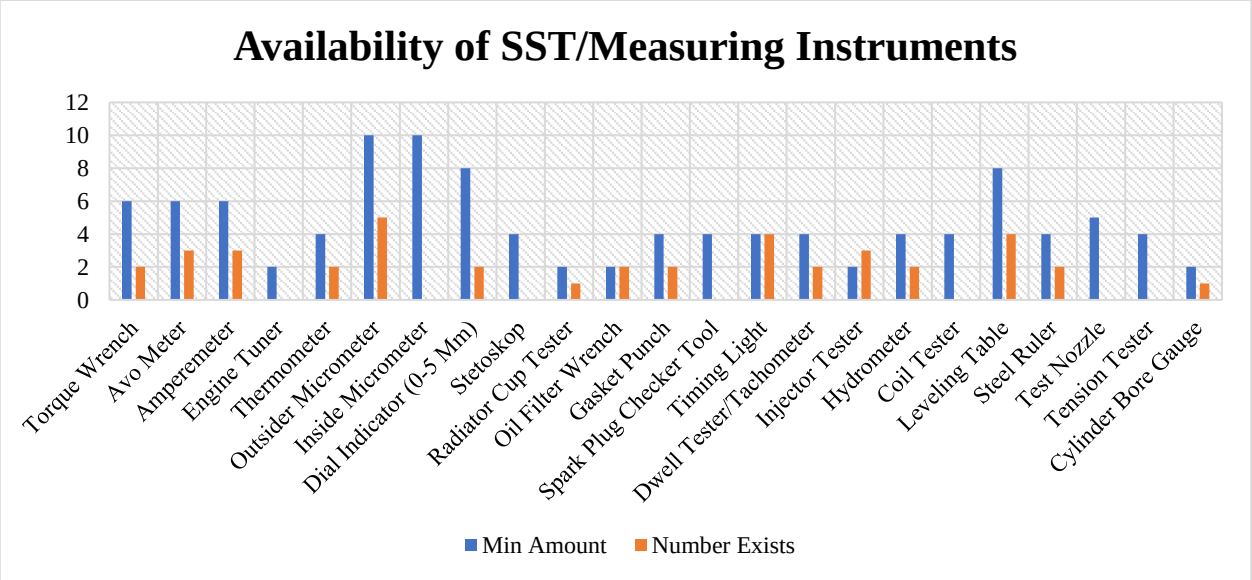

Figure 2. Graph of availability of SST/Measurement Tool for Light Vehicle Engineering practice

In the trainer unit section, there are 12 tools that should be owned by the TKR workshop at SMK N 2 Kotanopan. There are still many trainer units that are not feasible and are in an inappropriate category. There are five trainer units that are not owned by the TKR workshop of SMK N 2 Kotanopan so that they are categorized as very unfit category with a percentage of 0%, four tools that are considered inadequate with a percentage of less than 100%, and there are three tools that are categorized as feasible with a percentage of 100 %. Therefore, the overall percentage of unit trainers is 34.01%, which is included in the less feasible category. The trainer unit can be seen in the following table 3.

Table 3. Trainer unit

Tool's name	Amount		Feasibility Assessment			
	Min	Exist	1	2	3	4
Trainer Units						
Gasoline Motorcycle Stand	6	1	✓			
Diesel Engine Stands	6	1	✓			
Petrol Motor Stand (EFI)	2	0	✓			
Diesel Motor Stands (EDC)	2	0	✓			
Gasoline Engine Car	2	2				✓
4 Stroke Motorcycle	4	0	✓			
2 Stroke Motorcycle	2	0	✓			
Engine off	2	1		✓		
Manual Transmission	1	1				✓
Automatic Transmission (CVT)	1	o	✓			
Propeller Shafts	1	1				✓
Steering Gear Box	4	1	✓			

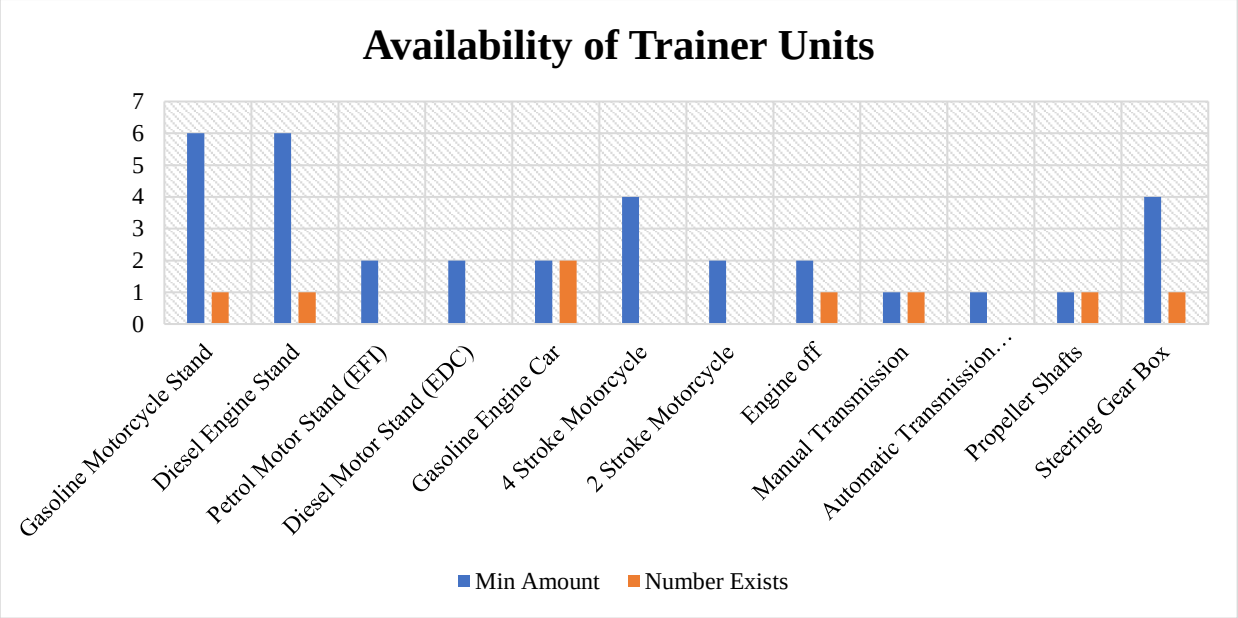

Figure 3. Graph Available Light Vehicle Engineering Practice Unit Trainer

TKR workshops must also have supporting tools to meet the practicum needs of their students. At the SMK N 2 Kotanopan workshop, there were five tools that were not in the TKR workshop so that they were categorized as very unfeasible with a percentage of 0%, six tools were included in the very feasible category or percentage 100%, one tool is categorized as feasible with a percentage of 62.5%, and three tools are categorized as not feasible. Overall, the average percentage of supporting tools reaches 56% which is included in the feasible category. The supporting tools can be seen in the following table 4.

Table 4. Feasibility Of Supporting Tools

Tool's name	Amount		Feasibility Assessment			
	Min	Exist	1	2	3	4
Support tools						
Air Compressors	2	4				✓
Locker	8	2	✓			
Trays	8	5			✓	
Caddy Tool Set	8	8				✓
Sleepers	6	0	✓			
Battery Charge	2	2				✓
Cleaner Parts	2	2				✓
Hydraulic Jack	4	4				✓
Jack Stands	4	5				✓
Manual Book	8	2	✓			
Automotive Motor Modules	8	1	✓			
Motor Learning Panels	8	0	✓			
Picture Of Gasoline Motor System Cycle	4	0	✓			
Diesel Motor Cycle Pictures	4	0	✓			
Motor Cut Models	8	0	✓			

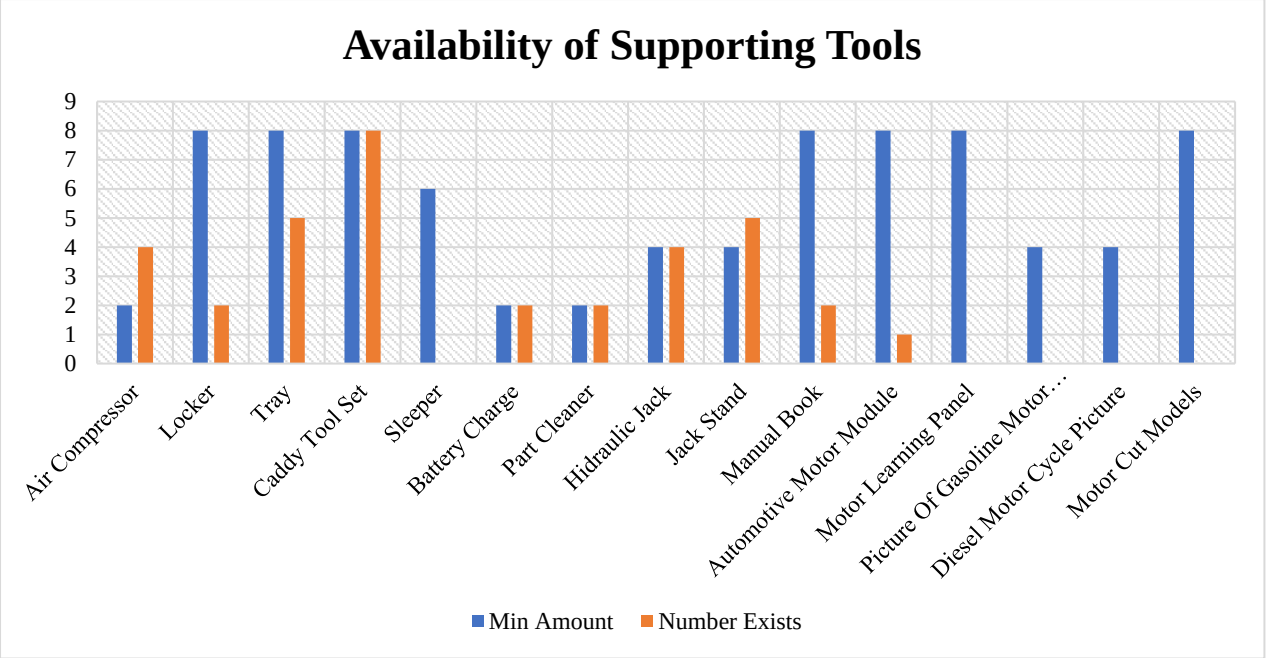

Figure 4. Availability of tools to support the practice of Light Vehicle Engineering

Based on the above observations, it can be seen that the availability of workshop facilities for light vehicle engineering practicum activities can be achieved with an average presentation of 57.08%. However, there are still tools that are not available in the TKR workshop at SMK N 2 Kotanopan. This is caused by several factors, one of which is the limited budget available to meet the needsln TKR workshop facilities and infrastructure and have several tools that cannot be used anymore, so these tools are no longer placed in the workshop.

2. *Feasibility of Light Vehicle Engineering Workshop Practice Facilities*

Based on the description above and the availability and feasibility data for TKR workshop facilities and infrastructure above, it can be concluded that all TKR workshop facilities at SMKN 2 Kotanopan are feasible, as a percentage obtained from the calculation of the average number of all 57.08% included in the feasible category. All equipment is generally considered feasible, but there are tools and materials that are not yet available and do not meet the standards in terms of quantity. This is caused by several factors, one of which is the limited budget available to accommodate the practical facilities and infrastructure needed for TKR workshop operations.

3. *Light Vehicle Engineering Workshop Infrastructure*

The Light Vehicle Engineering (TKR) learning room is a light vehicle workshop. The light vehicle workshop is used as a place for practical learning activities. The infrastructure that must be provided by each of these programs is stipulated by the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 34 Talhun 2018. The following is a description of information on the availability of infrastructure for the practice of Light Vehicle Engineering Workshops, as shown in the table below.

Table 5. Results of The Feasibility Level of Light Vehicle Engineering Workshop Infrastructure at SMK Negeri 2 Kotanopan.

Type	Standard Ratio	Description
Automotive Engineering practice	6 m²/student	Capacity for 16 students.The minimum area is 96 m². Minimum width is 8 m.
Electrical practice place	6 m²/ student	Capacity for 8 students. The minimum area is 48 m². Minimum width is 6 m.
Chassis and Power Shifter practice	8 m²/ student	Capacity for 8 students. The minimum area is 64 m². Minimum width is 8 m.
Storage and Instructor	6 m²/ student	The minimum area is 48 m². Minimum width is 6 m.

Table 6. The Results of The Feasibility Level of Light Vehicle Engineering Workshop Facilities at SMK Negeri 2 Kotanopan.

	Land area		Student Capacity		Ratio Presentation
Type	**Standard Ratio**	**Results in School**	**Standard Ratio**	**Results in School**	
The area of the automotive engine practice area	6 m²/ student	2.25 m²/ student	Capacity for 16 students. The minimum area is 96 m². Minimum width of 8 m.	16 students Area 72 m². Width 8 m.	75%
Electricity practice area	6 m²/ student	2.25 m²/ student	Capacity for 8 students. The minimum area is 48 m². Minimum width of 6 m.	16 students Area 72 m². Width 8 m.	150%
Extensive practice of chassis and power transfer	8 m²/ student	2 m²/student	Capacity for 8 students The minimum area is 64 m². Minimum width of 8 m.	16 students Area 64 m². Width 8 m.	100%
Spacious storage area and instructor	4 m²/instructor	2 m²/instructor	The minimum area is 48 m². Minimum width of 6 m.	Area 24 m². 3m wide.	50%

4. Feasibility of Practicing Infrastructure for Light Vehicle Engineering Workshop at SMK N 2 Kotanopan

The feasibility of the light vehicle engineering workshop infrastructure in this study was determined by observationlthe researcher. The light vehicle engineering workshop in terms of infrastructure feasibility can be seen in the following table 7:

Table 7. Description of The Feasibility Level of Light Vehicle Engineering Workshop Infrastructureln SMK Negeri 2 Kotanopan.

Aspect	Condition	Information
Automotive mechanic practice	Worthy	Unavailability of dividing work areas with one another.
Electrical practice place	Very worth it	Lack of cleanliness and untidy equipment
Chasis practice place and power transfer	Very worth it	Arrangement of items that are less tidy so that items look scattered.
A place to store tools and instructors	Not worth it	There are still some tools that are not in their place so that the tool looks messy.

Based on the table above, it can be seen that the physical condition of the existing buildings or infrastructure at SMK Negeri 2 Kotanopan is quite feasible to use. This is indicated by the suitability of the available infrastructure with the number of students in each practice or the use of the infrastructure, although some practices sometimes require the use of different rooms, even so this does not prevent students from having other practices. However, some tools that are not in their place make the workshop look less tidy.

B. Discussion

1. Practice Facilities

Information about the condition of practice facilities can be determined by looking at how much equipment is obtained at the light vehicle engineering workshop and how much equipment must be available. From the results

of these observations the need for practice facilities is divided into 4 types, that is:

a. ToolBox

Based on table 1, there are eight tool boxes that can be categorized as very feasible because the number of toolboxes in the SMK N 2 Kotanopan workshop exceeds the number of standards that have been categorized by the government and four practical tools are categorized as feasible because totallh available tools in accordance with the minimum number of BSNP Standard No. 1289-P2-17/18 and there are four tools that are categorized as inadequate because the number is less than the standard set by the government, namely BSNP Standard No. 1289-P2-17/18.

b. SST / Measuring Instruments

Based on table 2 there are still many tools that are categorized as inadequate because the number available at SMK N 2 Kotanopan is still below the minimum number of standards set by the government, namely BSNP Standard No. 1289-P2-17/18, there is only one tool that can be categorized as very feasible and three tools are categorized as feasible.

c. Trainer Units

Based on table 3, there are only three tools that can be categorized as feasible and the other tools are categorized as inadequate because the number does not meet the minimum standards set by the government, namely BSNP Standard No. 1289-P2-17/18.

d. Support tools

Based on table 4 there are still no supporting tools at the SMK N 2 Kotanopan TKR workshop, there are only three supporting tools that are categorized as feasible and four tools are categorized as inadequate because they have not met the minimum number of standards set by the government, namely BSNP Standard No. 1289-P2-17/18.

Based on the description of the data presentedlIf it's practical, it can be seen that the types of tools that fall into the category of less feasible in terms of quantity are plastic hammers, feeler gauges, caliper, torque wrench, AVO meter, ammeter, thermometer, outside micrometer, dial indicator, radiator cap tester. , Punch hole, Dwell tester/Tachometer, Hydrometer, Leveler table, Steel ruler, Cylinder bore gauge, Diesel motor stand, Gasoline motor stand, Steering gear box, Locker, Tray, Toyota manual, Automotive motor module.

While the practical facilities that do not exist at all are Test lamp, Engine tuner, Stethoscope, Test coil, Test nozzle, Tension tester, Gasoline motorbike stand (EFI), Diesel motorbike stand (EDC), 4 stroke motorbike, 2 stroke motorbike, Automatic transmission (CVT), sleeper, motor learning panel, gasoline motor system cycle images, diesel motor cycle images, and motor cut models. So thatlfor other tools have met the minimum requirement standards adjusted to the reference used in this study.

Based on the description of the data regarding the functional conditions of the facilities presented, we can see that some of the tools are in a damaged/poor condition, including; Plus screwdriver, minus screwdriver, AVO meter, ohmmeter, while the other devices are in good condition.

2. Practice Infrastructure

The actual feasibility of infrastructure can be seen from the high percentage obtained. The percentage is obtained by dividing the ratio of school results by the current standard ratio. The school ratio is made from the division between the work area and the number of students.

Considering the Minister of Education and Culture of the Republic of Indonesia Number 32, the area of the automotive engine workspace is in the feasible category, the land area for the electricity workspace is in the very feasible category, the land area for the chassis workspace and power transfer is in the very feasible category, and the land area for the working space storage and instructors fall into the less feasible category.

Furthermore, it can be concluded that the facilities and infrastructure at the light vehicle engineering workshop at SMK Negeri 2 Kotanopan are currently adequate, but need to meet practical needs in terms of facilities and infrastructure at school because there are still several kinds of tools and materials that are not appropriate, some types are not available , the current infrastructure still needs to be equipped in terms of area and room facilities to encourage students to practice comfortably during practical learning activities in progress.

Based on an assessment of the physical condition of buildings or infrastructure at SMK Negeri 2 Kotanopan, it can be concluded that the available infrastructure is sufficiently feasible for students to use in practice and use of the infrastructure. Even though there were some obstacles such as the use of different rooms for some practices, this did not prevent students from doing other practices. However, it must be admitted that some tools that are not in their place make the workshop look untidy. In this context, the Merdeka Learning Campus Merdeka (MBKM) program can provide great benefits for developing the quality of education and preparing students to enter the world of work. In this case, SMK can prepare students to continue their education to tertiary institutions that implement the MBKM program, so that they can develop more in-depth skills and

knowledge in accordance with the demands of the industry. In addition, tertiary institutions implementing the MBKM program can also act as mentors for SMKs in developing practical learning facilities that meet industry standards and the demands of the MBKM program. Therefore, the synergy between practical learning facilities at SMK and the MBKM program can provide great benefits for developing the quality of education and preparing students to enter the world of work.

4. CONCLUSIONS

From the results of the research in the previous discussion, the final results can be achieved as follows:

1. The feasibility level of the facilities at the Light Vehicle Engineering Workshop at SMK N 2 Kotanopan is 56.87%, classified in the feasible category, with the following conditions:
   a. Toolbox is 96.09%.
   b. SST/measurement is 41.65%.
   c. Trainer units are 34.01%.
   d. Support tool is 85%.
2. The level of feasibility of infrastructure in the light vehicle engineering workshop at SMK N 2 Kotanopan, namely 93.75%, is categorized as very feasible with the following conditions:
   a. Automotive engine workplace is 75%.
   b. Electrical workplace is 150%.
   c. Chassis and power shifter work place is 100%.
   d. Storage space and instructor is 50%.

Even though several facilities were found that were not suitable, overall the available infrastructure met the standards and was quite feasible to use. Evaluation and improvement needs to be done on unsuitable facilities to ensure safety and comfort in practical learning. This is very relevant to the Independent Learning Campus Merdeka (MBKM) program which emphasizes improving the quality of education and preparing students to enter the world of work. In this context, the improvement of facilities and infrastructure at SMK N 2 Kotanopan, including the Light Vehicle Engineering workshop, can be part of an effort to develop the quality of education at SMK and prepare students to continue their education to tertiary institutions that implement the MBKM program.

Here are some suggestions for schools: (1) Need for expansion of automotive engine workplaces, and storage space, as well as instructor rooms. (2) Additional contacts (power jacks) are needed for practical activities that require electricity. (3) the need for additional tool and material storage cabinets to maintain their durability and safety; (4) The need for additional instructors due to the lack of instructors in TKR workshops. In addition, this research can be further developed for more researchers, so that the adequacy of practicum facilities and infrastructure in the Light Vehicle Engineering Expertise Program at SMK Negeri 2 Kotanopan can be fulfilled as a whole based on Vocational High School standards.

Merdeka Learning Kampus Merdeka (MBKM) program because this program aims to improve the quality of education and learning in tertiary institutions, including in vocational high schools. One of the points emphasized in the MBKM program is the improvement of facilities and infrastructure in tertiary institutions and schools. Therefore, by implementing the MBKM program, it is hoped that it can assist schools in meeting the needs for facilities and infrastructure in practicum learning at the Light Vehicle Engineering Expertise Program at SMK Negeri 2 Kotanopan. In this case, suggestions given such as the need to expand the automotive engine workplace, add electrical contacts, need to add tool and material storage cabinets, and add instructors, can be the focus of improvements made in the implementation of the MBKM program at SMK Negeri 2 Kotanopan.

AUTHORS' CONTRIBUTIONS

The team's study and investigation were guided by Wagino, the correspondence's author. Also, the drafting and approval of the study's final draught were distributed equally among all authors.

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