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The Influence of Learning Facilities on the Quality of Learning of Students Majoring in Office Management Automation

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ABSTRACT

Learning facilities have a major role in improving the quality of learning. Adequate facilities can create conducive conditions for the learning process. This research was conducted to recognise the influence of learning facilities on the quality of learning. Research includes quantitative research by stating the relationship with causality. This study uses a population of 51 students majoring in Automation and Office Governance at SMK Negeri 4 Takalar. The methods used in data collection are observation, documentation and questionnaire techniques. For the analysis technique, descriptive statistical analysis techniques are used, through the use of percentages and inferential statistical analysis techniques with data normality tests, product-moment correlation analysis, and simple linear regression analysis. The test showed that the results in the form of indicators from the Learning Facilities variable were in the very good category, while the Learning Quality variable was classified as good. According to the results of the product-moment correlation test, there was an influence between the two variables with a correlation coefficient value of 0.992. Based on the results of simple linear regression analysis, it can be concluded that there is a significant influence of learning facilities on the quality of learning in students majoring in Automation and Office Governance at SMK Negeri 4 Takalar.

Keywords: Learning Resources, Learning Quality, Office Management Automation

INTRODUCTION

Education is essential for educating the nation's children. Quality education will produce a quality generation. The quality of education can be assessed through the educational process in a particular country. In the learning process, teachers provide facilities to students so that the learning process runs smoothly, and through these interactions, effective learning occurs and meets expectations. In its implementation, the learning process needs to be carefully planned. If educators are able to plan the learning process effectively for students, learning objectives can be achieved with optimal results. Two factors influence learning outcomes: environmental factors and individual student factors, such as learning interest, motivation, learning habits and behaviours, student persistence in learning activities, social and economic conditions, and students' physical and emotional factors, which are important in students' ability to quickly absorb the learning material provided by educators.

In achieving learning objectives, the quality of learning serves as a determining factor for the success or failure of classroom learning activities. Schools are assessed through relative assessments. This is because the assessment indicators used in assessments are constantly changing in line with ongoing generational changes. Several aspects influence the quality of learning and must be understood by teachers, for example, facilities include infrastructure. Facilities are everything that directly supports the smooth running of student learning activities, for example, learning media. teaching aids, school supplies, and other things. Furthermore, infrastructure is everything that indirectly supports the success of student

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learning activities, such as access to the school, school lighting facilities, the School Health Unit, bathrooms, and other things.

Educational institutions, both formal and informal, must be prepared to procure and provide learning equipment and devices to meet the needs of students and educators, ensuring a smooth learning process. Planning educational facilities (infrastructure) includes analyzing and determining the necessary infrastructure through consideration of existing and available resources. Facilities are anything that directly supports the smooth running of learning activities, such as learning media, teaching aids, and other resources . (Ahmad, 2021; Barrett et al., 2019).

Furthermore, schools must be able to provide quality learning resources that meet standards for students to achieve learning objectives. Learning resources are crucial for the success of the classroom learning process. Without them, students will feel they lack the necessary knowledge, leading to poor communication between teachers and students. Judging from the existing reality, many schools still pay little attention to the completeness of existing facilities and appear not to prioritize them, as if the presence or absence of learning facilities has no impact on students, even though learning facilities are very useful in improving the delivery of material. The stages of education clearly require infrastructure and equipment, and all must be provided based on their needs. Seeing the facts, many schools still lack learning facilities, which causes learning activities to be hampered. An example of a school with learning facilities that are still lacking is SMK Negeri 4 Takalar. This school still lacks adequate equipment for the laboratory for the Office Management Automation major. As is known, in vocational schools, practicals certainly occur, but if the equipment is incomplete, learning activities are not optimal.

METHOD

This study uses a quantitative approach. With the type of research in the form of a bivariate type of research to explain the influence of learning facilities on the learning quality of students majoring in office management automation at SMK Negeri 4 Takalar. This study includes observations on two variables. Means of learning are independent variables symbolized by X, while learning quality is a bound variable symbolized by Y (dependent variable). In the variable learning facilities, three indicators are used, namely learning tools, teaching aids and learning media. Meanwhile, the Learning Quality variable uses 6 indicators, namely student activities, educators' ability to manage learning, student learning outcomes, learning climate, materials and learning systems. This study uses a population of 100 students so that the sampling method with a simple random sampling technique is to take a sample from the population randomly without paying attention to the strata contained in the population. Many populations are taken by 50% so that the research sample was conducted as many as 51 students. The method of collecting data is using observation techniques, documentation, and questionnaires/questionnaires. The data was analyzed using the SPSS application which contained descriptive statistical analysis and inferential statistical analysis.

RESULT AND DISCUSSION

In order to obtain the influence of learning facilities on the quality of learning, a research instrument in the form of a questionnaire was used, which is a method of collecting data for variable X as a learning facility and variable Y as the quality of learning by using statistical formulas contained in the Statistical Product and Service Solutions (SPSS) version 26 program which is considered relevant for data analysis.

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Descriptive Statistical Analysis of Learning Facilities Variables

The learning resources variable is measured based on three indicators: learning media, learning tools, and demonstration tools. Based on the research results, the learning resources variable (X) is classified as very good with a percentage value of 84.26%.

Table 1 Results of Data Analysis Per Learning Facilities Indicator (X)

Indicator	Number of items	N	N	%	Category
Learning Tools	4	956	1020	92,72	Excellent
Props	3	729	765	92,29	Excellent
Instructional Media	6	1465	1530	95,75	Excellent
Amount	13	3150	3315	84,26	Excellent

Source: Questionnaire Results

Learning tools are tools used to support the smooth running of learning/guidance activities in particular and the educational process in schools/madrasas in general. Research on students with special needs (OTKP) at SMK Negeri 4 Takalar indicates that the learning tool indicator falls into the very high category, with a percentage of 92.72%.

Learning tools are defined as a variety of objects and facilities that can be utilized in the teaching and learning process to support the explanation of subject matter and help students grasp the concepts being taught. These tools are designed to serve as aids that make the learning experience more concrete, interactive, and easier to understand. By integrating such tools, educators can bridge the gap between abstract theories and practical comprehension, ensuring that students engage more fully with the material.

Based on observations at SMK Negeri 4 Takalar, the use of learning tools has become a regular part of classroom activities. Teachers employ facilities such as LCD projectors, whiteboards, and other supporting media to convey information and learning content. These tools play a significant role in simplifying the delivery of lessons, enabling students to receive explanations more clearly, and fostering a learning environment where information can be absorbed and retained effectively

The research indicates that the learning tools of students with special needs (OTKP) at SMK Negeri 4 Takalar fall into the high category, with a percentage of 64.41%. This indicates that learning tools, as part of the learning resources used during the learning process, can be used to improve the quality of learning, thereby stimulating students' sensory-motor skills, reducing verbal learning methods, improving relationships between teachers and students, and so on. The use of learning tools in mathematics is crucial and necessary for elementary school children because they need abstract concepts. They often find it easier to learn abstract concepts, and the use of learning tools is quite effective and efficient at this stage of learning, achieving the desired learning objectives (Agbata et al., 2024; Bature, 2016; Bussi et al., 2000). Teaching aids are a common medium used to determine students' often unclear understanding. They are used to ensure an active and creative learning process and support students in understanding the material. Research on students with learning disabilities (OTKP) at SMK Negeri 4 Takalar shows that the teaching aid indicator is classified as very high, with a percentage of 92.29%.

Teaching aids are media that can be used to reinforce students' understanding of abstract concepts. Kania (2018, p. 2) states that "teaching aids are supporting media in explaining and embodying concepts during teaching, making the content more easily understood by

students." Observations conducted at SMK Negeri 4 Takalar revealed that teaching aids include computers, printers, and other tools used in the learning process.

Based on research conducted on students in the OTKP (Teaching and Learning Outcomes Test) at SMK Negeri 4 Takalar, teaching aids were classified as high, with a percentage score of 65.09%. This indicates that teaching aids, as part of the learning resources, can be used to improve the quality of learning, enabling students to stimulate sensory-motor development, reduce the use of verbal learning methods, increase interaction between educators and students, and so on.

Learning resources are not always tied to books or other materials. Therefore, the use of learning resources and teaching aids is essential, as we will always need them (Bušljeta, 2013; Nemejc et al., 2019; Ordu, 2021). To ensure learning objectives are achieved and students understand what the educator will convey, selecting learning resources is quite challenging, as it requires a thorough understanding of what is needed during the learning process.

Learning media is any object that can be used as a teaching tool and also to convey information from the teacher to the recipient, or vice versa. Research on students in the Office Automation and Management program at SMK Negeri 4 Takalar indicates that the learning media indicator falls into the very high category, with a percentage of 95.75%.

Learning media are various forms of tools and materials used during the learning process to support students' understanding and mastery of learning material. These media can take the form of physical objects, technology, or a combination of the two, designed to effectively communicate information and facilitate understanding. Learning media includes anything that can be used to transmit messages from sender to recipient, and can stimulate students' thoughts, feelings, attention, and interest in learning(Ediyani et al., 2020; Lubis et al., 2023; Muhaimin & Juandi, 2023; Sahronih et al., 2019)

Based on observations conducted by researchers at SMK Negeri 4 Takalar, conclusions can be drawn regarding the learning media used during the learning phase, including computers, laptops, books, and so on. These learning media are used to convey learning information to students. The study found that learning media were classified as high-level, with a percentage of 67.12%. This indicates that learning media are among the primary resources used in learning activities. Learning media are essential because they can be used to increase learning interest, review previously learned material, provide learning stimulation, encourage active student responses, and offer positive feedback.

These findings align with research by Damayanti (2021), Ramdhani and Muhammadiyah (2015), Sahronih et al., (2019) On learning media, which states that "the use of learning media in learning activities can spark curiosity and new interests, generate motivation and stimulate learning activities, and provide several psychological influences on students." The use of learning media in the orientation process will significantly support the effectiveness of the learning phase and the delivery of lesson content and messages.

Descriptive Statistical Analysis of Learning Quality Variables

The learning resources variable is measured based on six indicators: student activity, educators' learning management skills, student learning outcomes, learning climate, materials, and learning mechanisms. According to the research results, the learning quality variable (Y) is in the good category with a percentage level of 75.48%.

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Table 2: Results of Data Analysis Per Learning Quality Indicator (Y)

Indicator	Number of Items	n	N	%	Category
Student Activities	4	913	1020	89,50	Excellent
Teacher Skills in Managing Learning	4	955	1020	93,62	Excellent
Student Learning Outcomes	5	1180	1275	92,54	Excellent
Learning Climate	4	935	1020	91,65	Excellent
Material	4	964	1020	94,50	Excellent
Learning System	3	704	765	92,02	Excellent
Amount	24	4317	5355	75,48	Good

Source: Questionnaire Results

Student activities include all classroom activities during the learning process and trigger behaviors that influence student learning outcomes. A study of students with the OTKP (Student Activity Test) at SMK Negeri 4 Takalar showed that the student activity indicator was classified as very high, with a percentage of 89.50%. A study of students with SMK Negeri 4 Takalar showed that the student activity indicator was classified as very high, with a percentage of 81.66%. This indicates that student activities can improve the quality of their own learning. These activities include understanding learning materials, discussing them with classmates and teachers, reviewing material repeatedly for quick comprehension, and engaging in back-and-forth discussions with subject teachers, focusing on learning concepts.

This finding aligns with Andyani, (2012); Beery, (1946); Win and Maung, (2019) opinion that "one of the student activities is listening activities, which relate to students' skills in concentrating on learning, listening to conversations, discussing, and giving speeches." This means that student activities can improve students' skills in various areas, including learning. Mastery of learning management skills is crucial for teachers, as it encourages students to think critically as problem solvers, fosters new and old understandings, explores and assesses students' understanding of learning materials, fosters interest and a desire to learn, and so on. Research on students in the OTKP (Teacher-Based Learning Outcomes) program at SMK Negeri 4 Takalar indicates that the indicator for teacher learning management skills falls into the very high category, with a percentage of 93.62%.

Research on students in the OTKP at SMK Negeri 4 Takalar indicates that the indicator for teacher learning management skills falls into the very high category, with a percentage of 86.76%. This indicates that educators' learning management skills can improve learning quality, as they are the primary instrument in learning activities, playing a role in managing learning, controlling learning, protecting students, and so on. (El Koshiry et al., 2024; Shore & Dinning, 2023).

Student Learning Outcomes

Learning outcomes are a manifestation of learning attitudes, generally seen through changes in behaviour, attitudes, observation, and skills. The success or failure of an individual in the learning process at a certain level of education can be determined through their own learning outcomes. Research on students with OTKP (Learning Outcomes) at SMK Negeri 4 Takalar indicates that the learning outcome indicator falls into the very high category, with a percentage of 92.54%. Learning outcomes are a set of abilities possessed by students after receiving learning experiences. (Dharma et al., 2020; Gunawan et al., 2021; Nurkhin et al., 2022)

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Based on research on students with OTKP at SMK Negeri 4 Takalar, the learning outcome indicator falls into the high classification, with a percentage of 69.64%. This indicates that student learning outcomes can improve the quality of learning because high learning outcomes can encourage students to be more diligent in learning and continuously improve their achievements.

The learning climate is a classroom environment that is related to learning activities. Learning climate includes conditions characterised by patterns of interaction and communication between educators and students, students with educators, and between students. Research on students in the Automation and Office Management program at SMK Negeri 4 Takalar indicates that the learning climate indicator is in the very high category, with a percentage of 91.66%.

The study found that the learning climate significantly impacts learning quality through attention to key factors related to climate, such as hot weather that can distract students from listening to material, an unfavourable classroom atmosphere that can lead to disorganised focus, teacher and student moods, and other factors. Social relationships are closely related and can impact the quality of the learning climate. Social relationships are formed when learning activities motivate students to be more productive and collaborate with each other (Gunawan et al., 2021; Nurkhin et al., 2022; Yu, 2021).

Instructional materials are the understanding, skills, and behaviors that students must possess to meet established competency standards. Research on students at SMK Negeri 4 Takalar's OTKP (Experimental Testing) indicates that the material indicators are classified as very good, with a percentage value of 85.39%. This indicates that the material can impact the quality of learning, as the complex and unstructured learning materials provided by educators can make it difficult for students to grasp the essence of the learning.

The learning system includes stages of student interaction with teachers to develop creativity in thinking during the learning process, which then produces the desired results. The results of research on students in the Automation and Office Management program at SMK Negeri 4 Takalar showed that the learning system indicators were classified as very high, with a percentage of 80.39%. This condition indicates that the learning system can influence the quality of learning because the learning system focuses on the cause-and-effect interaction process between educators and students, which can be explored in detail. In addition, with this reciprocal process, students can dig deeper into the learning material.

The learning system being developed has a broad meaning, as it encompasses input, process, and output aspects. Input aspects of learning include student characteristics, individual characteristics, facilities (infrastructure) and learning support devices. Output aspects include learning outcomes and effects. State that research models and the development of learning systems can select parts of the system's components, but their implementation must consider the rest of the system (Nurkhin et al., 2022; Yu, 2021).

The Influence of Learning Facilities on Learning Quality

1. Data Normality Test

   Data normality testing is conducted to examine whether the distribution of data follows a normal pattern. This step is essential before performing regression analysis, as regression requires normally distributed data to produce valid results. In this study, the normality test was carried out to evaluate the distribution of data related to learning resources (X) and learning quality (Y), based on the data collected during the research process.

   The testing procedure employed the Non-Parametric One-Sample Kolmogorov-Smirnov Test with the assistance of SPSS version 26. This method was chosen to identify

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whether the data deviates significantly from a normal distribution. The outcome of this test serves as a prerequisite for further statistical analysis, ensuring that the assumptions of regression are properly met.

Table 3: One-sample Kolmogorov Smirnov Test

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			51
Normal Parametersa,b	Mean		.0000000
	Std. Deviation		4.24272899
Most Extreme Differences	Absolute		.111
	Positive		.076
	Negative		-.111
Test Statistic			.111
Asymp. Sig. (2-tailed)c			.167
Monte Carlo Sig. (2-tailed)d	Sig.		.116
	99% Confidence Interval	Lower Bound	.108
		Upper Bound	.125

a. test distribution is normal.

Source: Analysis Results with SPSS 26 Program

Based on the results presented in Table 3, the significance value obtained is 0.167, which is greater than the threshold of 0.05. This aligns with the decision-making criteria used in the One-Sample Kolmogorov-Smirnov Test, where a significance value above 0.05 indicates that the null hypothesis cannot be rejected.

Thus, it can be concluded that the data follows a normal distribution, as the probability value of 0.167 exceeds 0.05. This outcome confirms that the assumption of normality is met and the data can be further analyzed using statistical methods that require normally distributed data.

2. Product Moment Correlation Analysis

Product moment correlation analysis is a statistical analysis test used to identify the existence of a relationship between the learning resources variable (X) and the quality of learning (Y) in the OTKP of SMK Negeri 4 Takalar. The following are the results of the analysis with product moment correlation through the use of the SPSS version 26 program.

Table 4: Product-Moment Correlation Analysis

Correlation

		Learning Resources	**Quality of Learning**
Learning Resources	Pearson Correlation	1	.992
	Sig. (2-tailed)		.001
	N	51	51
Quality of Learning	Pearson Correlation	.992	1
	Sig. (2-tailed)	.001	
	N	51	51

Source: Analysis Results using SPSS 26 Program

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The product moment correlation analysis shows that the results of the two variables are correlated. This is seen from the significance value of 0.001 < 0.05. According to the statistical analysis of the product moment correlation, the calculated r value is 0.992. Based on the r interpretation table presented by Sugiyono (2019, p. 184), it can be concluded that the correlation coefficient with a value of 0.992 is included in the 0.8 - 1.0 category, indicating a very high level of correlation.

3. Simple linear regression analysis

The simple linear regression test aims to test the hypothesis in this study, namely to predict the influence of learning facilities on the quality of learning in OTKP SMK Negeri 4 Takalar through the use of SPSS version 26 program support.

Table 5: Results of Simple Linear Regression Analysis (Coefficients)

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	110.637	17.127		.010	.001
Learning Resources	1.738	.277	.992	6.460	.992

a. Dependent variable: Learning Quality
Source: Analysis Results with SPSS 26 Program

According to the results of the simple linear regression output in table 4.10, it can be seen that the constant coefficient value is 0.277 and the coefficient of the Y variable is 1.737 so that the regression equation Y = 110.637 + 1.738 X is obtained, which means that the learning facilities have a value of 110.637 then the positive value (1.738) contained in the learning facilities variable (X) illustrates that the learning facilities variable (X) and the quality of learning (Y) illustrate that the learning facilities variable (X) and the quality of learning (Y) are in the same direction. The constant is 110.637, and the regression coefficient X is 1.738, which states that for every 1% increase in the additional value of learning facilities (X), the participation value also increases by 1.738. The regression coefficient is positive so it can be concluded that there is an influence of the X variable on Y which is positive.

4. The Influence of Learning Facilities on Learning Quality

Learning resources and learning quality are interrelated. Adequate learning resources can improve learning quality. Learning quality can be influenced by learning resources, as these resources will improve learning quality along with the continued development of school facilities. Learning resources are the tools necessary for learning activities to achieve learning objectives smoothly, effectively, orderly, and efficiently.

Learning facilities are tools and equipment that are directly used in learning activities, for example classrooms, buildings, chairs, tables, and learning media tools (Maisyaroh et al., 2025; Sahronih et al., 2019b; Wiyono et al., 2025). Learning quality is the level of systemic relationships and synergy between educators, students, curriculum, learning materials, infrastructure, and learning systems when providing optimal learning processes and outcomes based on curricular pressures.

This condition is in accordance with the results of research conducted by Kemp et al., (2018), Loeb et al., (2017) who stated that descriptive analysis shows that learning infrastructure at SMA Nusantara Tauro is included in the high classification, namely the

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percentage value of 33.34%, but the majority still has the perception that learning infrastructure at SMA Nusantara Tauro is included in the low classification, namely 27.27%, and student learning achievement is quite good. According to the results of the regression analysis, there is an impact of learning infrastructure on student learning achievement at SMA Nusantara Tauro, and there is acceptance of Ha and rejection of H0. Learning facilities have an impact on student learning achievement of 53.9% and the remaining value of 46.10% is influenced by other variables which are not included in the research variables.

CONCLUSION

The use of these various facilities and tools, such as LCDs/projectors, whiteboards, computers, and books, is in the high category with a significant percentage. This shows that these facilities are effective in improving the quality of learning by facilitating the delivery of information, increasing interaction between teachers and students, and providing learning stimulus. Furthermore, in the variables of learning quality, aspects of student activities, teachers' skills in managing learning, student learning outcomes, learning climate, materials, and learning systems also showed positive results. Student activities, teachers' skills in managing learning, and student learning outcomes are in the very high category, indicating a significant contribution to improving the quality of learning. In particular, the role of teachers in managing learning, including mastery of skills in this regard, has a major impact on student learning outcomes. A good learning climate, both in terms of classroom atmosphere and social relationships, also makes a positive contribution to the quality of learning. Learning materials and learning systems, which include interaction between teachers and students, reciprocal processes, and a focus on developing thinking creativity, also have a positive influence on the quality of learning. Overall, the results of the study show that the implementation of learning facilities and tools, coupled with the quality of student activities, teacher skills, learning outcomes, learning climate, materials, and learning systems, together contribute positively to improving the quality of learning at SMK Negeri 4 Takalar.

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