

## Effectiveness of Junior High Schools in Minahasa Regency

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### ABSTRACT

This study aims to analyze the effectiveness of junior high schools (SMP) in Minahasa Regency and to examine the influence of teacher competence, learning resource management, instructional media, principal leadership, classroom management, and school academic culture on school effectiveness. This research employed a quantitative approach using a survey method. The study was conducted in 103 public and private junior high schools in Minahasa Regency. Data were collected through questionnaires, observations, and documentation, involving teachers and principals as respondents. Data analysis was performed using multiple linear regression, preceded by classical assumption tests including normality, linearity, and multicollinearity tests, with a significance level of  $\alpha=0.05$ . The results show that, partially, teacher competence, learning resource management, instructional media, principal leadership, classroom management, and school academic culture have a positive and significant effect on junior high school effectiveness in Minahasa Regency, with significance values of  $p < 0.05$  for each variable. Simultaneously, the results of the F-test indicate that the six independent variables jointly have a significant effect on school effectiveness (Sig.  $< 0.05$ ). Furthermore, the coefficient of determination indicates that school effectiveness is substantially influenced by the combined contribution of these variables, while the remaining variance is explained by other factors outside the research model. The study concludes that the effectiveness of junior high schools in Minahasa Regency is significantly influenced by teacher competence, learning resource management, instructional media, principal leadership, classroom management, and school academic culture, both partially and simultaneously. Therefore, improving school effectiveness requires an integrated and sustainable strengthening of these factors to enhance educational quality and achieve optimal educational outcomes at the junior high school level.

**Keywords:** academic culture, classroom management, instructional media, learning resource management, principal leadership, school effectiveness, teacher competence.

## INTRODUCTION

The Industrial Revolution 4.0 has brought about rapid changes in various areas of life, including education. Education 4.0 is a response to the needs of the Industrial Revolution 4.0, where humans and technology are aligned to create new opportunities with creativity and innovation. Facing the Industrial Revolution 4.0 requires adequate human resources (HR) ready to adapt and compete globally. The quality of educators, such as teachers, is crucial for success in facing the Industrial Revolution 4.0. Teachers are required to master the skills and ability to adapt to new technologies. These skills include students' critical thinking and problem-solving skills, creativity and innovation, communication and collaboration skills, and the ability to search, manage, and convey information, as well as the skillful use of information and technology. This can be achieved, among other things, by optimizing the use of technology as an educational tool, which is expected to produce output that is up-to-date and better.

The success of a school is one measure based on educational goals and objectives. This aligns with the national education objectives outlined in Law Number 20 of 2003 concerning the National Education System, which defines the extent to which a school achieves its objectives within a specific period as dependent on the length of time the school has been in school. Based on this perspective, schools can be categorized as effective or ineffective, depending on the level of success in achieving goals and objectives. Therefore, an effective school is one that achieves its planned goals and objectives. In general, school effectiveness is related to the strategies implemented and the results of any evaluations that have been achieved. School effectiveness is one factor that generally influences educational quality. Generally, school effectiveness is assessed comparatively, by comparing the average achievement scores of schools (Scheerens, 2013).

Furthermore, teacher performance is a key pillar in producing quality students. Successful teacher performance can be considered successful and high-quality if the factors influencing teacher performance are met. In the era of the Industrial Revolution 4.0, professional teachers must be able to demonstrate high achievement and performance. Therefore, coaching and training are generally needed to improve teacher performance in secondary schools. Therefore, the principal is obliged to provide guidance, motivation, and improve the development of teacher competencies, as well as foster creativity and high productivity to achieve maximum results in order to improve the quality of education. In this context, the principal's leadership becomes an increasingly important strategic factor, because an effective leadership style can create a conducive school climate, increase professional collaboration between teachers, and strengthen a quality-oriented work culture.

The demand for teacher professionalism comes not only from the government but also from the community, which utilizes teachers to guide, teach, and educate students. Without teacher professionalism, it is virtually impossible for students to achieve optimal learning outcomes. We therefore need to carefully review Law Number 20 of 2003 concerning the National Education System and Government Regulation Number 19 of 2005 concerning National Education Standards. The eight national education standards (SNP) are: 1) Competency Standards; 2) Content Standards; 3) Process Standards; 4) Management Standards; 5) Educator and Education Personnel Standards; 6) Evaluation Standards; 7) Financing Standards; and 8) Facilities and Infrastructure Standards. In addition to teacher

competency and learning resources, classroom management is also an essential aspect, as it supports an orderly, effective, and student-centered learning process.

Furthermore, school culture plays a crucial role in supporting school effectiveness. A strong school culture characterized by a commitment to quality, disciplined learning, collaboration among school members, and recognition of achievement can strengthen the learning process and increase student motivation and engagement. Therefore, school culture is a crucial variable that needs to be studied in relation to school effectiveness, particularly at the junior high school level.

The lack of additional and updated educational facilities that support the learning process in junior high schools in Minahasa Regency can be understood as an issue empirically identified in various educational studies. Educational facilities such as adequate classrooms, laboratories, libraries, and learning technology are crucial components that directly impact the quality of the teaching and learning process. Research shows that the physical condition of a school and the availability of learning resources have a significant relationship with learning effectiveness and student academic achievement. Good-quality school facilities are correlated with increased learning comfort, student motivation, and higher learning outcomes (Earthman, 2004). Schools with adequate facilities tend to have a more positive school climate and better student academic performance (Uline & Tschannen-Moran, 2008). Furthermore, the quality of a school's physical environment, including lighting, ventilation, classrooms, and other supporting facilities, can explain approximately 16% of the variation in student learning outcomes at the elementary school level (Barrett et al., 2015). An official report from the Ministry of Education, Culture, Research, and Technology indicates that there are still disparities in the quality of educational facilities and infrastructure between regions, particularly in laboratory facilities, libraries, and learning media, which do not fully meet national education standards (Kemendikbudristek, 2022). Therefore, the lack of additions and renewals to educational facilities in junior high schools in Minahasa Regency can be seen as a structural factor that has the potential to hinder the optimization of the learning process and the effectiveness of schools in achieving educational goals to the maximum.

The lack of efforts to maintain student achievement that has met graduation standards through the Final Summative Examination (USAJ) in junior high schools in Minahasa Regency can be understood as a problem of sustainable learning outcomes. In educational management, academic achievement that has met standards is not automatically maintained if schools do not undertake systematic efforts such as monitoring learning outcomes, strengthening remedial and enrichment programs, and continuous evaluation of the learning process. Research shows that the sustainability of student learning achievement is strongly influenced by consistent evaluation practices and follow-up by schools. Assessment of learning outcomes will only impact educational quality if accompanied by feedback mechanisms and continuous learning improvements (Guskey, 2003). Monitoring learning outcomes and follow-up evaluations have a significant influence on the improvement and stability of student academic achievement (Hattie, 2009). The OECD report through the PISA study also shows that education systems that successfully maintain student academic achievement generally have learning evaluation systems integrated with decision-making at the school level (OECD, 2019). Meanwhile, the Indonesian education profile report published by the Ministry of Education, Culture, Research, and Technology confirms that many schools have achieved minimum learning outcome standards, but not all have sustainable strategies to maintain and improve these achievements through systematic management of assessment results (Kemendikbudristek, 2022). Therefore, the lack of

strategic efforts to maintain student achievement in junior high schools in Minahasa Regency could indicate weaknesses in utilizing learning evaluation results as a basis for decision-making to improve educational quality at the school level.

Lack of school attention and motivation for improving teacher quality is a factor frequently identified in educational management studies and has been shown to impact the quality of teaching and student learning outcomes. Various studies have shown that school institutional support, principal leadership, and teacher reward and professional development systems significantly influence teacher motivation. When school attention to professional development, training, and rewards for teacher performance is relatively low, teacher motivation tends to decline, impacting the quality of classroom teaching. Teacher motivation has a significant influence on teacher performance and student learning outcomes, and school leadership support plays a crucial role in enhancing this motivation (Putri et al., 2020). Teacher work motivation and school leadership support simultaneously have a significant impact on teacher performance, even explaining approximately 34.3% of the variation in teacher performance in implementing the learning process (Zulfiter et al., 2023). Positive interactions between school leaders and teachers are one of the main factors determining the level of teacher professional motivation, which ultimately influences school effectiveness and learning quality (Köse et al., 2024). Therefore, school attention and motivation towards improving teacher quality are not optimal, a condition that has the potential to hinder the improvement of teacher professionalism and the quality of the learning process in schools, including junior high schools in Minahasa Regency.

The continued unmet standards for educators and education personnel constitute a significant problem in the Indonesian education system and have the potential to impact the effectiveness of school management and the quality of learning. Normatively, Law Number 14 of 2005 concerning Teachers and Lecturers stipulates that teachers must possess a minimum academic qualification of a bachelor's degree (S1/D4), professional competence, and a teaching certificate as proof of professional eligibility. However, empirically, compliance with these standards remains uneven. Many education systems across the world still face challenges in ensuring that all educators meet established professional standards, particularly regarding academic qualifications, ongoing professional training, and equitable teacher distribution (UNESCO, 2021). Data from the Ministry of Education, Culture, Research, and Technology indicates that by 2022, approximately 1.63 million teachers, or more than 50% of teachers in Indonesia, still lack teaching certificates. Consequently, teacher professional quality does not fully meet national education standards (Ministry of Education, Culture, Research, and Technology, 2022). Although most junior high school teachers have at least a bachelor's degree, certification and professional development remain significant challenges in improving the quality of education (Rizaty, 2024). In fact, educational research reports indicate that although approximately 97% of teachers meet the minimum academic qualifications, only approximately 47.78% hold professional certification, indicating a gap between academic qualifications and professional recognition (Ministry of Education, Culture, Research, and Technology, 2022). This situation indicates that the standards for educators and education personnel have not been optimally met in various regions, particularly those outside education centers. From an educational management perspective, meeting teacher qualification and professional standards significantly determines the quality of the learning process and student learning outcomes (Jayani, 2019). Teacher quality is the most significant factor influencing student learning success and academic achievement (Darling-Hammond, 2017). Teacher competence, including pedagogical and professional qualities, is a factor with a significant

influence on student learning outcomes (Hattie, 2009). Therefore, the standards for educators and educational staff have not been optimally met in junior high schools in Minahasa Regency. This condition is an indicator of challenges in improving the quality of education and the suboptimal effectiveness of school administration.

The lack of variety in teaching methods used by teachers is a common problem in school teaching practices and has the potential to reduce student engagement and motivation. In the context of learning management, the dominant use of monotonous methods, such as lectures, without the inclusion of active learning strategies, can lead to students' cognitive and emotional lack of engagement in the learning process. Varied, interactive, and feedback-based learning strategies significantly improve student learning outcomes, while less varied approaches tend to decrease student engagement (Hattie, 2009). The use of various learning strategies, such as group discussions, cooperative learning, and problem-solving activities, can significantly increase student attention and participation compared to one-way learning methods (Marzano, 2007). In the context of educational research in Indonesia, several studies have also shown that teaching practices still dominated by lectures lead to students being passive, lacking focus, and even exhibiting symptoms of learning fatigue, such as drowsiness during teaching and learning activities. In addition, the OECD report through the PISA study confirms that students' active engagement in the learning process is greatly influenced by the pedagogical strategies used by teachers in the classroom (OECD, 2019). Therefore, in learning practices, teachers are still found to use monotonous learning methods, which cause some students to lack focus or become sleepy during the learning process. This condition can indicate that the variety of learning strategies used by teachers is not optimal and needs to be improved to support the creation of a more effective and interesting learning process for students.

The suboptimal use of learning media is a common problem in school learning practices and can impact the effectiveness of the teaching and learning process. Learning media, such as technological devices, teaching aids, and digital learning resources, have significant potential to enhance student engagement and understanding, but in practice, teachers do not always utilize them to their full potential. The use of well-designed multimedia-based learning media can significantly improve student conceptual understanding and learning retention compared to learning that relies solely on verbal explanations (Mayer, 2009). The use of diverse learning resources and media can enhance learning effectiveness by helping students understand the material more concretely and interactively (Hattie, 2009). A report from the Ministry of Education, Culture, Research, and Technology, published in the Indonesian Education Profile, indicates that although many schools have learning facilities such as technological devices and learning media, their utilization in the learning process is still suboptimal due to limited teacher competency in utilizing learning media effectively (Kemendikbudristek, 2022). Furthermore, a study conducted by the OECD in the PISA study confirmed that the presence of technological facilities in schools does not automatically improve the quality of learning if it is not accompanied by appropriate pedagogical use by teachers (OECD, 2019). Therefore, in learning practices at junior high schools in Minahasa Regency, available learning media are still rarely used during the learning process. This situation may indicate that the utilization of learning facilities is not optimal, potentially reducing the effectiveness of the learning process and student engagement in class.

Suboptimal management of learning resources in schools is one factor that can affect the effectiveness of the learning process and the quality of student learning outcomes. From an educational management perspective, learning resources include not only textbooks and libraries, but also various

learning facilities, educational technology, learning environments, and information management that support teaching and learning activities. If learning resource management is not carried out systematically, the various facilities and resources available in schools tend to be underutilized. Effective management of learning resources can increase students' access to various information sources and enrich their learning experiences in the classroom (Leaver & Shekhtman, 2002). A learning environment supported by good learning resource management positively contributes to student engagement and improved learning outcomes (Hattie, 2009). A UNESCO report states that many schools in various countries still face challenges in optimally managing and utilizing learning resources, particularly related to the coordination of school library management, the use of digital learning resources, and the integration of learning resources into lesson planning (UNESCO, 2021). A report by the Ministry of Education, Culture, Research, and Technology, through the Indonesian Education Profile, also shows that gaps remain in the management of learning resources in schools, both in terms of the availability of library collections, the use of learning technology, and the integrated learning resource management system with classroom learning processes (Kemendikbudristek, 2022). Therefore, learning resource management at junior high schools in Minahasa Regency is still less than optimal, a condition that can be a factor influencing the effectiveness of learning management and the achievement of educational goals in schools.

Lack of student motivation is a crucial factor often associated with low student engagement in the learning process and suboptimal learning outcomes. In studies of educational psychology and learning management, motivation plays a key role in encouraging students to actively engage in learning activities and maintain learning efforts over time. Intrinsic motivation is strongly linked to learning engagement, persistence in completing assignments, and improved academic achievement (Deci & Ryan, 2000). Student motivation and engagement are crucial factors influencing learning success and learning outcomes in school (Hattie, 2009). The OECD report, through the PISA study, also shows that students with low learning motivation tend to demonstrate lower academic performance than those with high learning motivation (OECD, 2019). The Indonesian Education Profile report from the Ministry of Education, Culture, Research, and Technology indicates that variations in student learning motivation remain a challenge in improving education quality, as reflected in fluctuations in student learning outcomes across various national assessments and school-level learning evaluations (Kemendikbudristek, 2022). Therefore, for two consecutive years, the USAJ results of junior high school students in Minahasa Regency have shown suboptimal performance. This condition could indicate problems with student learning motivation and the need for more effective learning strategies and school management to increase student engagement and enthusiasm for learning.

This study aims to examine in more depth the competencies of teachers, learning media, and learning resource management managed by the school in improving school quality. In line with the research variables, principal leadership, classroom management, and school culture are also important to examine because all three have a significant influence on the quality of the learning process and school effectiveness.

## METHOD

### Research Approach

The approach used in this research is quantitative, using a survey. Survey research is conducted on large or small populations, but the data studied is from samples drawn from that population to discover relative occurrences, distributions, and relationships between sociological and psychological variables, as stated by Kerlinger Sugiyono (2014). Therefore, survey research generally involves sampling but generalizations are made (sample data applies to the population). Therefore, sampling techniques and methods are crucial factors in survey research.

### Research Location and Time

This research was conducted at a junior high school (SMP) in Minahasa Regency, North Sulawesi. This research was conducted from March 2025 to November 2025.

### Research Population and Sample

#### 1. Population

A population is a group of individuals who share specific characteristics (Creswell, 2015: 287). The population in this study was all junior high school teachers in Minahasa Regency, spread across 103 schools, totaling 1,276 teachers.

#### 2. Sample

A sample is a group of the target population that the researcher plans to study to generalize about the target population (Creswell, 2015: 288). The teacher and principal samples will be drawn using proportionate random sampling. This sampling technique (Sugiyono, 2018) is a random sampling technique that selects sample members from the population without considering the strata within the population.

The population of this study was all junior high school teachers in Minahasa Regency, spread across 103 schools, totaling 1,276 teachers. The sample used was purposive sampling, which is a subset of the population selected for a specific purpose (Sugiyono, 2013).

The sample size was determined using the Slovin formula, as follows:

Slovin Formula

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = Sample size / number of respondents

N = Population size

e = Percentage of tolerable sampling error. The e value used is 0.1 (10%) for populations with exploratory studies or limited fieldwork.

The sample size used for teachers is as follows:

$$n = \frac{1276}{1 + 1276(0,0737)^2}$$
$$n = \frac{1276}{7,924} = 161,0298$$

Adjusted by the researcher to 161 teacher respondents.

After conducting the research based on the research period and the research object's conditions, a purposive sampling procedure was used to obtain a sample of 161 teachers. Thus, the total sample size was 161 teachers.

### **Data Collection Techniques and Instruments**

Data collection techniques are the methods used to obtain data for the research. The techniques used in this research are:

#### *a. Questionnaire*

A questionnaire is a data collection technique using several questions regarding the variables being measured. Questionnaires are categorized based on the method of answering, the answers given, and the format. Questionnaires are classified into open-ended and closed-ended questionnaires, based on the type of answers given, direct and indirect questionnaires. The questionnaire format consists of multiple-choice, fill-in-the-blank, checklist, and rating scale (Arikunto S., 2014, p. 195).

The questionnaire in this research serves as a tool used to measure teacher competency, learning media, learning resource management, and school effectiveness. The researcher used a questionnaire in this study because the data generated is quantitative, a requirement for quantitative research and correlation analysis.

#### *b. Documentation*

Documentation is the data collection method used in this study. Documentation was used to determine the number of teachers, school accreditation status, and average national exam scores for junior high schools in Minahasa Regency.

#### *c. Data Collection Instrument*

This study used a questionnaire as a research instrument to obtain data on teacher competency, instructional media, learning resource management, and school effectiveness. The instrument was developed based on relevant research. The instrument used to obtain data was based on a pre-developed theoretical framework, which was then developed into indicators.

The questionnaire used in this study was a closed-ended questionnaire. Based on its format, the questionnaire consisted of a checklist and a rating scale.

The specific form of the questionnaire included filling in personal information and filling in statements in the form of a rating scale, or a graded scale, with a column indicating the scale levels, namely a four-point scale.

The number of instruments used in this study depended on the number of variables being studied. The instrument used in this study was a written statement questionnaire to obtain information from respondents.

## **RESULTS AND DISCUSSION**

In this study, the data analyzed consisted of scores from seven variables obtained through questionnaires from 161 junior high schools (SMP) in Minahasa Regency, North Sulawesi, which served as the research sample. These seven variables included School Effectiveness as the dependent variable (Y), while Teacher Competence (X1), Learning Resource Management (X2), and Learning Media (X3), Leadership (X4), Classroom Management (X5), and School Culture (X6) served as

independent variables. The data from each variable were then described using descriptive statistical techniques using SPSS version 29 for Windows and Microsoft Excel.

**Classical Assumption Test**

The data analysis process in this study was conducted to address the existing problems by applying regression and correlation analysis techniques. Both techniques are parametric statistics, which require data from a normally distributed population and a linear relationship between variables. Therefore, before data processing, prerequisite analysis tests were conducted, namely normality and linearity tests. The results of these two prerequisite analysis tests can be described as follows:

*a. Normality Test*

One of the essential requirements in applying regression analysis is that the data and regression model used must be normally distributed. The data's conformity to a normal distribution can be tested using the Kolmogorov-Smirnov normality test for each variable. Data analysis was performed using SPSS software, where decision-making is based on probability values. If the probability is greater than 0.05, it can be concluded that the research data is normally distributed. Complete results of the normality test are usually displayed in the SPSS output. See Table 1.

**Table 1. Kolmogorov-Smirnov normality test**  
**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual	
N		161	
Normal Parameters <sup>a,b</sup>	Mean	.0000000	
	Std. Deviation	2.06438081	
Most Extreme Differences	Absolute	.072	
	Positive	.072	
	Negative	-.056	
Test Statistic		.072	
Asymp. Sig. (2-tailed) <sup>c</sup>		.040	
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.	.043	
	99% Confidence Interval	Lower Bound	.038
		Upper Bound	.048

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Based on Table 1, a two-tailed test obtained a significance value of 0.40 on the asymptotic line. A significance value greater than 0.05 indicates that the data is normally distributed. Furthermore, normality testing was also performed using scatterplot analysis, as shown in Figure 1.

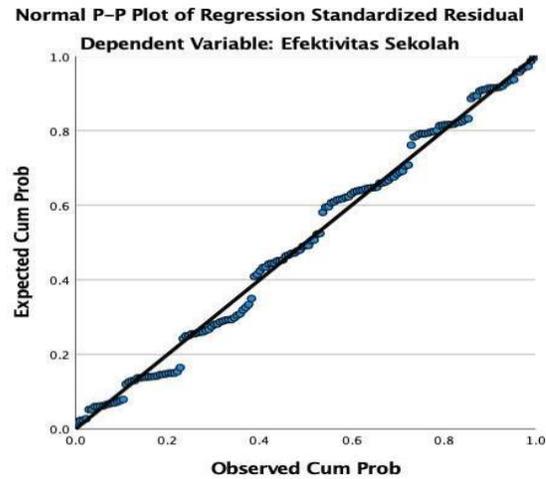


Figure 1. P-Plot

*b. Linearity Test*

The linearity test aims to determine whether the analyzed model is linear or not. The linearity results can be seen in the following table. If the deviation from linearity value exceeds 0.5, the model can be categorized as linear. See Table 2.

Table 2. Linearity test of school effectiveness with teacher competency

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
School Effectiveness * Teacher Competence	Between Groups	(Combined)	39,452	9	4,384	1,023	0,424
		Linearity	0,169	1	0,169	0,040	0,843
		Deviation from Linearity	39,282	8	4,910	1,146	0,336
	Within Groups		646,784	151	4,283		
	Total		686,236	160			

Based on Table 2, the results of the linearity test for school effectiveness and teacher competency show a deviation from linearity value of 0.336, greater than 0.05, indicating that the model is linear. See Table 3.

Table 3. Linearity Test for School Effectiveness with Learning Resource Management

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
School Effectiveness * Management Learning Resources	Between Groups	(Combined)	25,534	9	2,837	0,648	0,754
		Linearity	0,177	1	0,177	0,040	0,841
		Deviation from Linearity	25,357	8	3,170	0,724	0,670
	Within Groups		660,702	151	4,376		
	Total		686,236	160			

Based on Table 3, the results of the linearity test for school effectiveness using Learning Resource Management show a deviation from linearity value of 0.670, greater than 0.05, indicating that the model is linear. See Table 4.

**Table 4.** Linearity test for school effectiveness using learning media

			Sum of Squares	df	Mean Square	F	Sig.
School Effectiveness * Learning Media	Between Groups	(Combined)	4,842	9	4,982	1,173	0,316
		Linearity	4,150	1	4,150	0,977	0,325
		Deviation from Linearity	40,692	8	5,087	1,197	0,304
	Within Groups	641,394	151	4,248			
Total			686,236	160			

Based on Table 4, the results of the linearity test for school effectiveness using learning media show a deviation from linearity value of 0.304, which is greater than 0.05, indicating that the model is linear. See Table 5.

**Table 5.** Linearity test for school effectiveness using leadership

			Sum of Squares	df	Mean Square	F	Sig.
School Effectiveness * Leadership	Between Groups	(Combined)	32,442	9	3,282	1,183	0,216
		Linearity	2,250	1	3,350	0,987	0,315
		Deviation from Linearity	40,692	8	5,087	1,157	0,354
	Within Groups	641,394	151	4,248			
Total			686,236	160			

Based on Table 5, the results of the linearity test for school effectiveness with leadership show a deviation from linearity value of 0.354, which is greater than 0.05, indicating that the model is linear. See Table 6.

**Table 6.** Linearity test for school effectiveness with classroom management

			Sum of Squares	df	Mean Square	F	Sig.
School Effectiveness * classroom management	Between Groups	(Combined)	32,442	9	4,972	1,273	0,307
		Linearity	3,150	1	4,160	0,979	0,314
		Deviation from Linearity	30,692	8	5,097	1,198	0,324
	Within Groups	621,294	151	4,258			
Total			676,336	160			

Based on Table 6, the results of the linearity test for school effectiveness with classroom management show a deviation from linearity value of 0.324, which is greater than 0.05, indicating that the model is linear. See Table 7.

**Table 7.** Linearity test for school effectiveness with school culture

		Sum of Squares	df	Mean Square	F	Sig.	
School Effectiveness * School Culture	Between Groups	(Combined) 42,342	9	4,882	1,173	0,322	
		Linearity	1	4,240	0,977	0,331	
		Deviation from Linearity	40,922	8	5,027	1,197	0,392
	Within Groups	621,294	151	4,238			
	Total	676,336	160				

Based on Table 7, the results of the linearity test for school effectiveness and school culture show a deviation from linearity value of 0.392, greater than 0.05, thus confirming the linear model.

**c. Multicollinearity Test**

A multiple regression model can be applied if the independent variables are not perfectly correlated or free from multicollinearity issues. Multicollinearity detection is performed by examining the Variance Inflation Factor (VIF) and tolerance values using SPSS. The results of the multicollinearity test are shown in Table 8.

**Table 8.** Summary of Collinearity Statistics Tests

Variabel	Collinearity Statistics	
	Tolerance	VIF
Teacher Competencies	0,979	1,022
Learning Resource Management	1,000	1,000
Learning Media	0,979	1,022
Leadership	0,988	1,000
Classroom Management	0,987	1,001
School Culture	0,979	1,022

Based on Table 8, it can be observed that the tolerance for each independent variable exceeds the threshold of 0.1, with each VIF value below 10. Therefore, the conclusion is that there are no signs of multicollinearity in the regression model used.

**Hypothesis Testing**

*Simultaneous Test (F Test)*

The F test analysis can be used to evaluate the joint impact of education level, training, and job satisfaction on employee performance. If the p-value is less than 0.05, the null hypothesis can be rejected. Complete information on the results of the simultaneous test can be found in Table 9.

**Table 9.** Simultaneous Test Results (F Test)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5529.933	3	2764.971	76.962	.000 <sup>b</sup>
	Residual	1077.932	157	35.988		
	Total	6678.877	160			

a. Dependent Variable: School Effectiveness

b. Predictors: (Constant), Learning Media, Learning Resource Management, Teacher Competence, Leadership, Classroom Management, School Culture

With a very low p-value of 0.000 and a significance level below the 0.05 threshold, both the null and alternative hypotheses are accepted. This indicates that teacher competence, learning resource management, instructional media, leadership, classroom management, and school culture collectively influence the effectiveness of junior high schools in Minahasa Regency.

*Partial Test (t-Test)*

Partial hypothesis testing aims to assess the significance of certain independent variables, such as teacher competence, learning resource management, and instructional media, on the effectiveness of junior high schools in Minahasa Regency. See Table 10

**Table 10.** Partial test results (t-test)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	59,640	19,988		3.122	0,000
	Teacher Competencies	0,014	0,082	-0,004	3.554	0,001
	Learning Resource Management	0,020	0,094	0,017	4.213	0,000
	Learning Media	0,094	0,097	0,077	5.887	0,003
	Leadership	0,022	0,911	0,012	3.621	0,002
	Classroom Management	0,023	0,900	0,023	4.842	0,005
	School Culture	0,032	0,922	0,066	4.774	0,001

As seen in Table 10, the regression coefficient for teacher competence is 0.014, the coefficient for the Learning Resource Management variable is 0.020, the coefficient for the learning media variable is 0.094 with a constant of 59.640, the coefficient for the minimization variable is 0.022, the coefficient for the classroom management variable is 0.023, and the coefficient for the school culture variable is 0.032. Therefore, the resulting regression model is:

$$Y = 59.640 + 0.014X_1 + 0.020X_2 + 0.094X_3 + 0.022X_4 + 0.023X_5 + 0.032X_6$$

The partial test results show that for the teacher competence variable, the t-value is 3.554 with a significance level of 0.001, which is lower than 0.05. This results in the rejection of the null hypothesis (Ho) and the acceptance of the alternative hypothesis (Ha). Thus, it can be concluded that teacher competence influences the effectiveness of junior high schools in Minahasa Regency.

Furthermore, the partial test for the Learning Resource Management variable showed a t-value of 0.000 with a significance level of 0.000, which is also lower than 0.05. This indicates the rejection of  $H_0$  and acceptance of  $H_a$ , indicating that Learning Resource Management influences the effectiveness of junior high schools in Minahasa Regency.

The partial test for the learning media variable showed a t-value of 5.887 with a significance level of 0.003, which is also lower than 0.05. This indicates the rejection of  $H_0$  and acceptance of  $H_a$ , indicating that learning media influences the effectiveness of junior high schools in Minahasa Regency.

The partial test for the leadership variable showed a t-value of 3.621 with a significance level of 0.002, which is also lower than 0.05. This indicates the rejection of  $H_0$  and acceptance of  $H_a$ , indicating that leadership influences the effectiveness of junior high schools in Minahasa Regency.

The partial test for the classroom management variable showed a t-value of 4.824 with a significance level of 0.005, which is also lower than 0.05. This indicates the rejection of  $H_0$  and acceptance of  $H_a$ , indicating that classroom management influences the effectiveness of junior high schools in Minahasa Regency.

The partial test for the school culture variable showed a t-value of 4.774 with a significance level of 0.001, which is also lower than 0.05. This indicates the rejection of  $H_0$  and acceptance of  $H_a$ , indicating that school culture influences the effectiveness of junior high schools in Minahasa Regency.

### Simultaneous Determinant Coefficient ( $R^2$ )

**Table 11.** Results of the Determination Coefficient

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.080 <sup>a</sup>	0,889	0,811	3,084

a. Predictors: (Constant), Guru School Culture, Classroom Management, Leadership, Learning Media, Learning Resource Management, Teacher Competence

b. Dependent Variable: School Effectiveness

From the model summary in Table 11, it can be concluded that the coefficient of determination is used to evaluate the impact of school culture, classroom management, leadership, teacher competence, learning resource management, and instructional media on the effectiveness of junior high schools in Minahasa Regency. Based on analysis using SPSS, the adjusted simultaneous coefficient of determination ( $R^2$ ) reached 0.889. This indicates that teacher competence, learning resource management, and instructional media collectively influence the effectiveness of junior high schools in Minahasa Regency by 88.9%, while the remaining 11.1% is influenced by other factors not examined in this study.

### The Influence of Teacher Competence on Junior High School Effectiveness in Minahasa Regency

The test results,  $t = 3.554$  with  $p = 0.001 < 0.05$ , indicate that partially, teacher competence has a significant effect on the effectiveness of junior high schools in Minahasa Regency. Inferentially, the

probability of incorrectly rejecting  $H_0$  (no effect) is very small, so the decision to accept  $H_a$  is valid. Assuming a positive coefficient, these findings confirm that improving teacher competency, including pedagogical, professional, social, and personality competencies, is correlated with increased school effectiveness, reflected in the quality of the learning process, academic achievement, and a conducive learning climate.

Theoretically, school effectiveness is the result of the synergy of leadership, learning management, and the quality of the teaching staff. Educational administration literature positions teachers as the core instructional factor closest to student learning and having the greatest impact on student achievement (Hoy & Miskel, 2014). Therefore, the partial test results are consistent with this framework: when teachers are able to plan, implement, and evaluate learning professionally, schools are more effective in achieving their goals.

These findings also align with recent research (2020–2025). Quantitative studies in the Indonesian and international contexts indicate that teacher competency or its development is positively correlated with learning outcomes and indicators of school effectiveness. For example, research examining teacher competency on the effectiveness of the teaching and learning process found a significant effect, along with classroom management and discipline factors (Idris, 2022). At the system level, analysis of the 2021 National Assessment results shows that teacher competency is associated with student literacy and numeracy at the district/city level (Puspitaningtyas, 2023).

In the domain of pedagogical competence, several studies from 2022–2025 confirmed its influence on learning outcomes across various subjects and levels. Rustan (2022) found that teacher pedagogical competence correlated with higher average learning outcomes for elementary school students. A study published in 2025 also confirmed the influence of pedagogical (and professional) competence on learning outcomes in both high school and Islamic elementary schools (SMA/MI/SD) (Fransiska, 2025; Jurnal Yudistira, 2025; J-CUP, 2025). These findings demonstrate consistency across subjects: the more competent teachers are in designing and managing learning, the better student outcomes on key indicators of school effectiveness.

Regarding continuing professional development (CPD/PKB), recent international meta-analyses and reviews demonstrate that structured training, ongoing coaching, and teacher collaboration through professional learning communities improve teaching skills and student learning outcomes. Ventista (2023) summarizes evidence that CPD has a significant impact on student performance. Another study (2023) found that continuous teacher capacity development was a critical factor influencing academic performance. PLC practices at the district level also demonstrated increases in student literacy and numeracy proficiency after several years of consistent teacher collaboration, providing good practice evidence of the causal pathway between strengthening teacher competencies and school outcomes.

In the Indonesian policy context, teacher competency standards (Law No. 14/2005) emphasize four competency domains as prerequisites for professionalism. When these four domains are internalized, for example through assessment-based planning, conceptual scaffolding, and authentic evaluation, school effectiveness indicators (process quality, learning outcomes, and positive culture) are boosted. The results of a partial test support this normative claim with local empirical evidence (Minahasa Regency), while also aligning with national and global evidence for 2020–2025.

Practical implications: school principals and education offices need to prioritize high-leverage teacher competency strengthening strategies: (1) structured CPD with classroom coaching and lesson

study; (2) PLCs based on formative data and common assessments; (3) academic supervision focused on instructional practice; (4) competency-based incentives and impact on learning outcomes. Recent evidence suggests such designs most consistently improve student performance and school effectiveness.

### **The Influence of Learning Resource Management on the Effectiveness of Junior High Schools in Minahasa Regency**

The partial test results for the Learning Resource Management variable, which showed a significance value of 0.000, less than 0.05, provide empirical evidence that Learning Resource Management has a significant influence on the effectiveness of junior high schools in Minahasa Regency. This finding confirms that a school's success in achieving educational goals is inseparable from the quality of its resource management. In the educational context, resources include teaching and administrative staff, facilities and infrastructure, curriculum, budget, and support from the community and the surrounding environment. Good Learning Resource Management enables each component of the school to function optimally, complementing each other and supporting the achievement of the school's vision and mission.

Theoretically, the results of this study align with the management concept proposed by George R. Terry (in Siagian, 2016), which emphasizes the functions of planning, organizing, directing, and supervising (POAC) as key to managing an organization. If this principle is applied in education, schools, as educational organizations, will be able to utilize existing resources effectively and efficiently. This means that principals, teachers, and all educational staff are required to possess adequate managerial skills in managing, utilizing, and developing the school's resources.

Several previous studies also support this finding. Supardi (2018) found that school effectiveness is closely related to Learning Resource Management, particularly in terms of developing teaching staff and providing adequate learning facilities. Another study by Hoy & Miskel (2013) showed that school effectiveness is the result of a complex interaction of various organizational factors, one of which is the extent to which Learning Resource Management is implemented professionally. Schools that effectively manage teachers, educational staff, and learning facilities tend to be more successful in improving student academic achievement, fostering a positive school culture, and increasing stakeholder satisfaction, including parents and the community.

In the context of Minahasa Regency, the influence of Learning Resource Management on junior high school effectiveness is crucial given the geographic challenges, limited infrastructure in some areas, and varying levels of community support. With effective Learning Resource Management, schools can optimize their existing potential, for example by empowering teachers through ongoing training, utilizing information technology as a learning tool, and developing collaborations with external parties to support educational activities. This aligns with the concept of school-based management (SBM), which emphasizes the importance of school independence in managing resources according to their individual needs and characteristics.

The practical implication of these findings is the need to improve the managerial capacity of principals and teachers in Minahasa Regency. Principals, as educational leaders, must be visionary managers, motivators, and supervisors to ensure synergistic management of all school resources. Teachers also need to be supported with relevant training to maximize the use of available facilities. Furthermore, the local government needs to ensure adequate budget allocation, equitable distribution

of teachers, and improvements to educational infrastructure throughout Minahasa. Improving this aspect of Learning Resource Management will not only achieve but also sustain the effectiveness of junior high schools in Minahasa in the long term.

Therefore, it can be concluded that Learning Resource Management is a fundamental factor in determining school effectiveness. Good management of human resources, infrastructure, finances, and external environmental support will directly impact the quality of learning, the achievement of educational goals, and the development of student potential. These findings not only enrich the literature on educational management, but also provide practical contributions to efforts to improve the quality of education at the junior high school level, especially in Minahasa Regency.

### **The Influence of Learning Media on the Effectiveness of Junior High Schools in Minahasa Regency**

The results of the partial test on the learning media variable showed a t-value of 5.887 with a significance level of 0.003. This significance value is less than the 0.05 threshold for accepting the hypothesis. This indicates that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. In other words, learning media has been proven to have a significant influence on the effectiveness of education delivery in junior high schools in Minahasa Regency. This finding strengthens the assumption that the appropriate use of learning media can encourage the achievement of educational goals, both in terms of material understanding, improving thinking skills, and developing positive student attitudes towards the learning process.

Theoretically, learning media functions as an intermediary, facilitating teachers in conveying educational messages to students. The presence of media can overcome limitations of the senses, space, and time in learning activities. For example, abstract concepts can be explained visually using animation or simulation media, making it easier for students to understand complex material. Furthermore, learning media also helps create a more engaging and interactive learning environment. This ultimately increases students' motivation to actively participate in the learning process.

This research aligns with the study by Beteng et al. (2022), which asserts that digital media plays a significant role in increasing learning effectiveness and expanding students' access to information. Similarly, Wulandari and Prasetyo (2021) demonstrated that technology-based interactive media can provide more meaningful learning experiences and improve learning outcomes. In his book, Arsyad (2019) also emphasized that learning media serves to clarify messages, increase attention, and provide a variety of learning methods to prevent monotony. Therefore, the results of this research in Minahasa Regency reinforce existing literature that learning media is a key factor in improving the quality of education.

Furthermore, the influence of learning media is not only felt by students but also provides direct benefits to teachers. Teachers who utilize learning media can more easily deliver material systematically, in a varied, and contextual manner. This impacts teacher professionalism, as they are encouraged to continuously innovate in selecting and developing media that meet learning needs. In the context of education in Minahasa, the use of learning media can be a strategy to address the gap in education quality between schools, particularly between schools in the city center and those in rural areas.

Another implication of this research is the importance of support from educational institutions and local governments in providing learning media facilities and infrastructure. Learning effectiveness is not only determined by teacher skills and student motivation, but also depends

heavily on the availability of adequate media. Therefore, investment in the procurement of educational technology devices such as computers, LCDs, internet networks, and digital-based learning applications needs to be continuously increased. Support for educational policies oriented towards school digitalization will also significantly assist in expanding the optimal use of learning media.

Furthermore, the results of this research can serve as a foundation for schools in designing more creative and innovative learning strategies. Teachers are encouraged to go beyond conventional lecture methods and combine them with visual, audio, and interactive multimedia. This way, the learning process will be more adaptive to technological developments and in line with the characteristics of the current generation of students who are more familiar with digital devices.

Considering these findings, it can be concluded that learning media plays a very strategic role in increasing the effectiveness of education in junior high schools, particularly in Minahasa Regency. Appropriate media utilization, supported by adequate policies and facilities, will result in more effective, interactive learning that is tailored to students' needs. These findings not only strengthen previous theories and research, but also provide practical implications for improving the quality of education at the regional and national levels.

### **The Influence of Leadership on Junior High School Effectiveness in Minahasa Regency**

The partial test results, which showed a  $t$ -value of 3.621 with a significance level of 0.002, indicate that the leadership variable has a real and significant influence on the effectiveness of junior high schools in Minahasa Regency. The significance value, which is well below 0.05, confirms that the relationship between leadership and school effectiveness is not a statistical coincidence, but rather a genuine contribution occurring within the school's operational context. Therefore, the null hypothesis ( $H_0$ ) stating no influence of leadership is rejected, and the alternative hypothesis ( $H_a$ ) is accepted. This finding confirms that the quality of principal leadership is a determining factor in creating effective schools, both in terms of management, learning, and human resource development.

This finding is consistent with various studies in the past five years that demonstrate that principal leadership is a determining factor in increasing school effectiveness. Windasari (2024) found that principal leadership directly influences school effectiveness by improving the organizational climate and teacher discipline. Maharani's (2023) research also confirms that transformational leadership has a significant relationship with school effectiveness, particularly through the mechanism of teacher empowerment and the creation of a collaborative work culture. Furthermore, Nurhayati's (2021) research shows that instructional leadership plays a strong role in improving the quality of learning, which ultimately impacts overall school effectiveness. Even in regional studies, such as those conducted in Southeast Minahasa and Tomohon between 2020 and 2024, it was found that the quality of principal leadership consistently influences teacher performance, job satisfaction, and school management efficiency. The alignment of these research findings with various empirical findings indicates that leadership factors have a strong, consistent influence in the Indonesian educational context, including in Minahasa Regency.

From a theoretical perspective, this study's findings align with educational leadership literature published in the last ten years. Bastian (2022) states that principal leadership is a driving force that determines the direction of school change, both in terms of administration, human resources, and learning. The instructional leadership theory introduced by Hallinger and Murphy, and reinforced in

the educational management literature of the last decade, emphasizes that principals who play an active role in instructional supervision, curriculum development, and teacher development are able to create a more effective learning environment. Masbirorotni (2024) also highlights the importance of adaptive leadership, particularly in addressing technological changes, curriculum demands, and the dynamics of student needs in 21st-century schools. Furthermore, Triwiyanto (2020), in his book on educational management, states that effective leadership is reflected in the principal's ability to build a learning culture, manage conflict constructively, and create a transparent communication system between all school stakeholders. Thus, the theoretical literature clearly emphasizes that leadership is not merely an administrative function but a strategic capability that determines school effectiveness.

The findings of this study have important practical implications for improving educational quality in Minahasa Regency. First, the need to strengthen the capacity of school principals through instructional leadership training, change management, and teacher professional development. Second, these findings can serve as a basis for local governments to formulate leadership-based school development policies, such as principal coaching programs, data-driven academic supervision, and strengthening a collaborative work culture among teachers. Third, future research can further explore other variables that may interact with leadership, such as school organizational culture, teacher motivation, or infrastructure support, to obtain a more comprehensive picture of the determinants of school effectiveness. Overall, the results of this study reinforce the understanding that leadership plays a central and strategic role in supporting school effectiveness. Supported by recent empirical findings and fundamental theories in educational management, it is clear that principals who demonstrate visionary, inclusive, and learning-oriented leadership will be able to lead their schools to more effective and sustainable achievements. These findings not only enrich academic studies but also provide practical contributions to efforts to improve the quality of education at the regional level.

### **The Influence of Classroom Management on the Effectiveness of Junior High Schools in Minahasa Regency**

Partial test results indicate that the classroom management variable has a  $t$ -value of 4.824 with a significance level of 0.005, which is less than the  $\alpha$  limit of 0.05. This means that  $H_0$  is rejected and  $H_a$  is accepted, thus confirming that classroom management has a significant effect on the effectiveness of junior high schools in Minahasa Regency. This significance not only indicates a statistical relationship but also indicates that improvements in classroom management strategies significantly contribute to increased school effectiveness. From a theoretical perspective, classroom management includes the physical arrangement of the learning space, establishing rules and procedures, managing student behavior, establishing routines, and managing time and social interactions conducive to learning. All of these aspects play a crucial role in creating a safe, structured, and efficient learning environment. When teachers are able to manage their classrooms optimally, learning time increases, disruptions decrease, student engagement increases, and the learning process becomes more effective, thus directly impacting indicators of school effectiveness, such as the quality of educational services, academic achievement, discipline, and student satisfaction with the school environment.

These findings align with various studies over the past five years that have confirmed the significant influence of classroom management on learning quality and school effectiveness. Research by Nurlatifah (2024) shows that structured classroom management practices contribute significantly

to learning effectiveness in secondary schools, particularly in the areas of behavior management and strengthening student responses. Similarly, research by Novitasari et al. (2024) found that classroom management has a strong relationship with the effectiveness of the learning process in junior high school students, where clarity of classroom rules and teacher consistency are key factors in determining success. Meanwhile, a study by Sihombing et al. (2023) in Medan confirmed that sound classroom management strategies are a key foundation for maintaining learning effectiveness during the post-pandemic transition period, particularly as students adapt to face-to-face learning. International studies in recent years have even reinforced the same pattern: that good classroom management can improve academic outcomes, student engagement, and the socio-emotional climate in schools. The consistency of these findings suggests that the research findings in Minahasa Regency do not stand alone but rather fall within the current research trend that positions classroom management as a key determinant of educational effectiveness.

Theoretically, the findings of this study are also supported by classroom management literature in academic books and professional guides published over the past ten years. The latest edition of the Handbook of Classroom Management confirms that preventive and instructional elements in classroom management are the most influential factors in improving the effectiveness of the learning process and student learning outcomes. Marzano, Wong & Wong, and several other figures in the field of pedagogy emphasize that learning success is determined more by the quality of classroom management than by teaching methods alone. According to Wong & Wong (2018), effective schools are always characterized by teachers who consistently implement classroom procedures, thus creating a stable and supportive academic climate. Similarly, Trianto (2013) emphasized that managing a structured learning environment is a fundamental part of the modern Indonesian learning model, as it influences student motivation, focus, and the quality of interactions.

Thus, this combined evidence demonstrates that the influence of classroom management on junior high school effectiveness is not only statistically proven but also theoretically sound and consistent with relevant research findings from the past five years. These results emphasize the importance of improving teacher capacity in classroom management, developing standard operating procedures for teaching at the school level, and strengthening academic supervision to ensure consistent classroom management practices. These efforts will ultimately improve overall school effectiveness, particularly in the context of junior high schools in Minahasa Regency.

### **The Influence of School Culture on the Effectiveness of Junior High Schools in Minahasa Regency**

The partial test results for the school culture variable showed a  $t$ -value of 4.774 with a significance level of 0.001, which is much lower than the critical limit of 0.05. This finding confirms that school culture has a significant influence on the effectiveness of junior high schools in Minahasa Regency. Substantively, this means that the stronger the academic values, study habits, teacher work ethic, professional collaboration, and academic leadership support within a school, the higher the school's level of effectiveness in achieving learning objectives. This effectiveness encompasses various aspects, such as the accuracy of curriculum implementation, the quality of the learning process, the effectiveness of classroom management, and student learning outcomes. The significant influence seen in these statistical results illustrates that school culture is not merely an additional aspect, but rather a crucial foundation that shapes the climate and dynamics of the school environment.

From a theoretical perspective, the results of this study align with the view that school culture functions as a "value system" that guides the behavior of school members and influences teachers' professional practice. Schein (2010) and other organizational experts emphasize that organizational culture influences interaction patterns, decision-making, and commitment to quality. In the educational context, school culture encompasses learning norms, academic traditions, communication patterns, and a collective spirit for improving the quality of learning. When these academic values are consistently implemented, teachers tend to have a stronger work orientation, are disciplined in teaching, are more open to innovation, and demonstrate good collaboration within work teams. All of these are ultimately reflected in overall school effectiveness. A study by Ismail (2022) showed that school culture significantly influences school effectiveness in the island nation of the Maldives, where schools with a strong school culture were shown to perform better in learning management and student achievement. Similar findings were presented in Budiarto's (2024) study, which showed that a positive school culture can improve teacher efficacy, work motivation, and the quality of learning interactions—components that directly contribute to school effectiveness. The RISE Indonesia report (2022) also confirms that a professional teacher culture built through collaboration, academic communication, and leadership that supports innovation significantly improves the quality of learning, especially in secondary schools in developing regions. Torres (2022) through his theoretical study showed that educational organizational culture plays a key role in predicting the success of school policy implementation, including achieving effectiveness. Thus, the results of this study are not only statistically supported but also supported by empirical evidence and the latest theoretical studies. The book *School Culture Rewired* by Gruenert and Whitaker (2015) emphasizes that school culture is a key foundation in building effective schools. The authors explain that successful schools are always built on a strong culture, where teachers and principals have a shared understanding of academic standards, trust each other, and work collaboratively to achieve common goals. Furthermore, Zepeda et al. (2022) in their book *Leading School Culture through Teacher Voice and Agency* emphasize that principals who are able to build a healthy school culture through strengthening teacher voice, professional empowerment, and developing learning communities will result in significant improvements in school effectiveness. This literature strengthens research findings that school culture is a key variable in improving the quality of school management and student learning outcomes.

Considering the research findings and the literature, it can be concluded that school culture plays a significant role in determining the effectiveness of junior high schools in Minahasa Regency. This finding has strong policy implications, namely the need for schools and local governments to prioritize the development of school culture through leadership training, the formation of teacher learning communities, and the strengthening of academic values that constitute the school's identity. School culture is not merely an internal indicator but a key strategy for continuously improving the quality of education. Therefore, this study provides empirical and theoretical evidence that increased school effectiveness can be achieved through strengthening a school culture that is systematically, consistently, and oriented toward quality learning.

**The joint influence of teacher competence, learning resource management, instructional media, leadership, classroom management, and school culture on the effectiveness of junior high schools in Minahasa Regency.**

The analysis results show a p-value of 0.000, which is well below the 0.05 significance level, indicating that the tested model has a very strong level of fit and is statistically significant. These findings confirm that the null hypothesis stating that there is no joint influence of teacher competency, learning resource management, instructional media, leadership, classroom management, and school culture on school effectiveness can be rejected. Therefore, the alternative hypothesis is accepted, namely that all these variables simultaneously contribute significantly to improving the effectiveness of junior high schools in Minahasa Regency. Substantively, this illustrates that school effectiveness is not the result of a single dimension of educational policy or practice, but rather the product of the interaction and synergy of various internal school factors. When teacher competency aligns with effective learning resource management, supported by relevant learning media, visionary leadership, structured classroom management, and a conducive classroom culture, the entire school system works harmoniously to produce better quality educational services.

These findings also align with various studies over the past five years that emphasize the importance of a comprehensive approach to improving school quality. A 2020 study on the influence of teacher competency and school culture on learning outcomes in Cantigi District showed that the combination of these two variables significantly impacts student performance. Similar results emerged in a 2023 study on the influence of classroom management and teacher competence on learning achievement at SMP Islam NW Jakarta, which emphasized that teacher competence alone is not enough; it must be balanced by effective classroom management for optimal learning. Furthermore, a literature review on school organizational effectiveness also highlights the importance of leadership strategies capable of efficiently managing school resources, as strong leadership has been shown to have both direct and indirect impacts on institutional effectiveness. Research in recent years has also shown that school culture and curriculum management are positively correlated with learning quality, especially at the secondary level. Several studies of private vocational high schools in 2024, for example, emphasized that the integration of curriculum management, teacher pedagogical competence, and school culture is a determining factor in maintaining consistent learning quality.

From a broader perspective, educational management theory books from the past ten years also provide a strong foundation for these findings. For example, Trianto (2013) suggests that an effective learning model can only be achieved if all components of education, teachers, students, learning media, and the classroom environment, function within an integrated system. This thinking aligns with Bush's (2011) school management theory, which emphasizes that school effectiveness is the result of the interaction between leadership, resource management, and a conducive organizational culture. Furthermore, Hoy and Miskel (2013) also emphasize that schools, as social organizations, are heavily influenced by human, structural, and cultural factors, so improvements must be made systematically and not piecemeal. Therefore, the results of this study can be understood within the theoretical framework that school effectiveness is a multidimensional phenomenon influenced by various interrelated variables.

From these overall results and supporting literature, it can be concluded that improving school effectiveness in Minahasa Regency requires an integrative and sustainable approach. Competent teachers will not be able to achieve optimal results without the support of adequate learning media and good classroom management. Conversely, even comprehensive media and learning resources will have no significant impact if they are not managed by professional teachers. Similarly, school

leadership and school culture serve as directional indicators that help stabilize and strengthen the overall learning process. Therefore, school development efforts need to focus on strengthening all variables simultaneously, rather than solely intervening in one aspect. These findings offer important implications for education policymakers, including the need for teacher training programs, strengthening the capacity of school principals, improving learning facilities, and developing an integrated school culture to foster sustainable school effectiveness.

## CONCLUSION

This study aims to determine the influence of teacher competence, learning resource management, and learning media on the effectiveness of junior high schools in Minahasa Regency. Based on the results of the study and discussion, the following conclusions can be drawn, The results of the t-test ( $t = 3.554$ ;  $p = 0.001 < 0.05$ ) indicate that teacher competence has a significant effect on the effectiveness of junior high schools in Minahasa Regency. This means that increasing teacher pedagogical, professional, social, and personality competencies is positively related to the quality of learning, academic achievement, and a conducive learning climate. This shows that the better the teacher competence which includes pedagogical, professional, social, and personality competencies, the higher the level of school effectiveness in organizing the learning process. The results of the partial test show a significance value of  $0.000 < 0.05$ , so that Learning Resource Management has a significant effect on the effectiveness of junior high schools in Minahasa Regency. This means that the management of teaching staff, facilities and infrastructure, curriculum, budget, and community support greatly determines the success of schools in achieving educational goals. These findings indicate that the management of learning resources, including planning, organizing, utilizing, and supervising learning resources in schools, contributes to increasing the effectiveness of learning implementation in schools. The partial test results show a t value = 5.887 with a significance of  $0.003 < 0.05$ , so  $H_0$  is rejected and  $H_a$  is accepted. This means that learning media has a significant effect on school effectiveness in junior high schools in Minahasa Regency, especially in improving student understanding of the material, thinking skills, and positive attitudes. This indicates that the use of appropriate and varied learning media in the learning process can support the effectiveness of the teaching and learning process in schools. Principal leadership has a significant and real influence on the effectiveness of junior high schools in Minahasa Regency, as evidenced by the t value = 3.621 and  $p = 0.002$ . This finding is supported by various recent studies and theories that show that the quality of leadership, both instructional, transformational, and adaptive, is a determining factor in improving the quality of school management, learning processes, and human resource development. Thus, effective leadership is proven to be a strategic component in realizing effective, high-performing, and sustainable schools. These findings indicate that the principal's leadership in directing, fostering, and coordinating all school activities plays an important role in increasing the effectiveness of school management. Classroom management significantly influences the effectiveness of junior high schools in Minahasa Regency, supported by a t-value of 4.824 with  $p = 0.005$ . This indicates that good classroom management, including rules, procedures, behavior management, routines, and learning interactions, can create a conducive learning climate and improve the quality of learning services. Consistency of findings with various studies and theories concludes that classroom management is a key component

in improving learning effectiveness and overall school performance. This indicates that teachers' abilities in managing the classroom, organizing the learning environment, and managing student behavior and learning activities contribute to the creation of an effective learning process. School culture was proven to have a significant influence on school effectiveness with a t-value of 4.774 and  $p = 0.001$ . This indicates that academic values, work ethic, professional collaboration, and a strong learning tradition can improve the quality of learning, management, and student learning outcomes. Organizational culture theory and recent empirical evidence indicate that school culture is an important foundation in creating effective, solid, and quality-oriented schools. These findings indicate that the values, norms, customs, and traditions that develop within the school environment play a role in supporting the creation of a conducive learning environment. Simultaneously, the variables of teacher competency, learning resource management, learning media, leadership, classroom management, and school culture have a significant influence on the effectiveness of junior high schools in Minahasa Regency, as evidenced by a p-value of 0.000. These findings clarify that school effectiveness is the result of the synergy of various educational components working in an integrated manner. Research and literature support that improving school quality cannot be achieved through a single intervention, but rather through comprehensive strengthening of all internal dimensions of the school. These findings indicate that school effectiveness is the result of the integration of various internal school factors that support each other in the implementation of education.

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