The Relationship between Teacher Training and the Use of Learning Media on Student Learning Achievement

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Abstract

This research aimed to determine the relationship between teacher training and the use of learning media on student learning achievement at MAN Tulungagung, Indonesia. This research used a quantitative approach with a correlational design. The research population was 243 teachers, and the sample was taken using the Slovin formula with an error rate of 5%, resulting in a sample of 151 respondents. The data collection technique used a questionnaire with a rating scale using a Likert scale. Data analysis techniques used linear regression analysis and multiple regression using SPSS software. The research results showed a positive and significant relationship between teacher training and student learning achievement ($\beta = 0.37$, $p < 0.05$). Likewise, there is a positive and significant relationship between the use of learning media and student learning achievement ($\beta = 0.45$, $p < 0.05$). Multiple regression analysis showed that these two factors simultaneously have a significant influence on student learning achievement ($\beta\_\text{Teacher Training} = 0.35$, $p < 0.05$; $\beta\_\text{Learning Media} = 0.42$, $p < 0.05$). The research results highlight the importance of improving teacher training quality and using innovative and effective learning media to improve student learning quality. The synergy of these two factors can create a more holistic and in-depth learning experience for students. Therefore, an integrated strategy of teacher training and learning media-based curriculum development can improve student achievement.

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A. Introduction

Student learning achievement is the primary indicator of the success of the education and learning process at school. At MAN Tulungagung, Learning achievements are of particular concern because learning activities are an integral part of the curriculum that supports the formation of students' character and understanding (Nasrah et al., 2022). However, there are still significant variations in student learning achievement, raising concerns regarding the effectiveness of learning methods (Lisnawati et al., 2023). To overcome this problem, two independent variables were identified that significantly affected student learning achievement: teacher training and use of learning media. Teacher training is essential because, through continuous training, teachers can improve their pedagogical and professional competencies, which in turn can improve the quality of teaching. Previous research shows that well-trained teachers deliver material and motivate students more effectively.

Learning media is also the focus of research because interactive and engaging media can increase students' interest and understanding of the learning materials. Suitable learning media can make learning more dynamic and enjoyable, positively impacting student learning outcomes (Efendi et al., 2023). Although many studies discuss the influence of teacher training and the use of learning media separately, few studies still examine the relationship between these two variables simultaneously in the educational context at the Madrasah Aliyah level. This research aimed to fill this gap by evaluating the simultaneous influence of teacher training and the use of learning media on student learning achievement at MAN Tulungagung. Good education is essential in forming students' character and moral values and strengthening student identity (Sitika et al., 2023). Teacher training and the use of learning media are essential to improve the quality of learning and student achievement. Good training can improve teachers' knowledge, skills and attitudes in teaching, while effective learning media makes the learning process more exciting and interactive for students (Manan, 2023).

The quality of teacher training plays a vital role in determining the success of education in schools (Fadriati, 2020). Relevant and contextual learning material is critical to help students understand the material well. This material helps convey learning concepts clearly and allows students to relate them to everyday life. Teachers can apply various learning methods, such as reflective discussions, collaborative projects, or educational technology, to create a more exciting and relevant learning experience for students (Istiqomah et al., 2023). This innovative approach allows students to understand education more profoundly and develop critical, collaborative, and problem-solving skills that are important for their future lives (Saleh, 2013). Teacher interpersonal skills greatly influence a positive and inclusive learning environment (Sholeh et al., 2023). Teachers with strong interpersonal skills can build supportive relationships with students, motivate them to learn, and provide effective guidance in facing academic and personal challenges.

Availability of resources is the key to ensuring the effectiveness of media use in the learning process (Sukmawati et al., 2023). Adequate technological infrastructure is a necessary foundation to support the use of learning media. Modern technology gives teachers access to various interesting and interactive learning media, such as videos, multimedia presentations, simulations, and other digital resources (Sawitri & Astiti, 2019). With these diverse media, teachers can deliver learning material that is more interesting and easily understood by students (Muammar & Suhartina, 2018).

Apart from that, infrastructure aspects, such as a reliable internet connection, classrooms equipped with technological devices, and the necessary hardware and software, have an essential role in supporting the use of learning media (Lestari, 2015). Solid infrastructure will ensure a smooth learning process without technical interference so that students can learn more efficiently and effectively (Kholil & Azhar, 2023). Support from schools and related institutions in providing adequate technological resources is also critical (Sholeh, 2023). Investment in educational technology and teacher training to make optimal use of this technology in learning is an important step (Limbong et al., 2022).

Student interest has a significant influence on their involvement in learning. Students interested and inspired by the materials tend to be more active in learning, seeking additional information, and participating in class discussions (Awaluddin & Samsudin, 2021). Therefore, teachers need to present learning material that is interesting and relevant to students' lives to arouse their interest. In addition, a supportive learning environment significantly impacts student engagement in learning (Lisnawati et al., 2023). A supportive social and physical environment can provide comfort and safety for students to participate actively in the learning process. Support from teachers, classmates and parents also plays a vital role in increasing students' motivation and self-confidence when facing lessons.

Using culturally sensitive learning media can help students connect more with subjects and improve their understanding. The local culture and values the people in Tulungagung adhere to can influence effective learning approaches and strategies (Nasrah et al., 2022). Teachers must understand and pay attention to the cultural values highly upheld in the local community to design relevant and appropriate learning to the students' cultural context. Contextual aspects, including the culture and social environment of students, have a significant influence on the effectiveness of teacher training and the use of learning media in improving student achievement. Culture and social environment are complex and diverse factors influencing student perceptions, behavior and learning (Wahid, 2023).

Students from low economic backgrounds may face challenges accessing adequate technology and learning resources (Surachman et al., 2024). Therefore, teacher training must address these challenges by providing inclusive and diverse learning strategies and ensuring all students have equal learning opportunities. The student population may be culturally diverse and have different social backgrounds. Learning media that considers diversity can help create an inclusive learning environment and support all students (Sholeh, 2024). Teacher training can also provide a better understanding of managing diversity in the classroom and encourage collaboration between students. Practical factors such as the availability of local resources, including school facilities and access to technology, also influence the implementation of teacher training and the use of learning media (Efendi et al., 2023). Teacher training needs to consider the availability of these resources in designing effective learning strategies. By paying attention to these contextual aspects, teacher training and learning media can be adjusted to the needs and characteristics of students. This will help create a more responsive and supportive learning environment, ultimately increasing student achievement.

This research explores the relationship between teacher training and the use of learning media on student learning achievement at MAN Tulungagung, with the research question: What is the relationship between teacher training and the use of learning media on student learning achievement at MAN Tulungagung? By better

understanding the factors that influence this relationship, this research can enrich the literature regarding factors that influence student achievement. From a practical perspective, the results of this research can provide recommendations for schools and educational institutions in designing effective teacher training programs and choosing appropriate learning media to improve student learning achievement.

B. Literature Review
1. Teacher Training and Improving the Quality of Education

Teachers who undergo professional training show significant improvements in their pedagogical skills. These skills include preparing lesson plans, managing the class more effectively, and using various teaching methods appropriate to the material (Supriyono, 2017). The impact of improving pedagogical skills can be seen in increasing teacher-student interactions, more effective delivery of material and use of learning media. Student achievement also increases due to the professional training given to teachers. Students show improved understanding of the material, higher test scores, and increased learning motivation. This indicates that improving pedagogical skills through training directly impacts student learning outcomes.

Innovative training regarding teachers' ability to adopt more effective teaching methods includes the use of educational technology, project-based learning approaches, and creative evaluation techniques. This training focuses on providing teachers with new tools and strategies that can be integrated into the daily teaching process (Khoirunisa, 2023). Teachers participating in innovative training can better increase student engagement and adopt and apply more varied and effective teaching methods and creative evaluations. This improvement in teaching methods positively impacts students' academic achievement. Students taught by teachers who have undergone innovative training show improved test scores, more engagement in class, and increased motivation to learn. Students can also apply the knowledge they gain more in everyday life, showing a deeper understanding of the material.

Continuous and targeted teacher training, both in the form of professional and innovative training, has proven effective in improving teachers' pedagogical skills and teaching methods. This increase directly impacts student learning achievement, including understanding material, academic grades, and learning motivation. Studies by Supriyono (2017) and Khoirunisa (2023) emphasize the importance of investing in teacher training to improve the quality of education. To achieve optimal results, training programs must be designed specifically according to teacher needs and the challenges faced in teaching.

2. Custom Content and Professional Development

Effective teacher training is not only limited to the development of general pedagogical skills but must also include mastery of the subject's specific content. For example, training focusing on mastering religious material is essential to ensure religious teachers can convey the material in-depth and accurately. Teachers who receive content training have better abilities in delivering material and answering student questions (Jaelani et al., 2020). Teachers who receive content training show increased mastery of the material, increased ability to answer student questions, increased understanding and retention, and increased teacher abilities.

Considering teachers needs and challenges, content-specific training must be designed to achieve optimal results. Several vital elements that need to be considered in this training are a concept-based approach, appropriate teaching methodology,

evaluation, and feedback. Training that focuses on mastering learning material is essential to improve the quality of teaching.

3. Learning Media Integration

Integrating learning media can have a positive impact on student understanding and motivation. Using diverse media helps convey complex material more interestingly and easily understood. The research results show that media integration can increase students' understanding of complex religious concepts (Mawardi, 2023). Videos and interactive software help students visualize the material being taught, making abstract concepts more concrete and easier to understand. Multimedia media also increases student involvement in learning, making them more enthusiastic and motivated to learn. In addition, students can access material delivered via multimedia media outside of class hours, allowing them to learn independently.

Research conducted by Othman (2023) explored the use of digital stories and gamification in the Al-Quran and Fardu Ain (KAFA) curriculum. This research found that this method can increase students' motivation and academic achievement (Othman et al., 2023). Integrating learning media in teaching improves students' understanding, engagement, and academic achievement. Using multimedia media, digital stories, and gamification is an effective approach to making complex religious material more accessible and engaging for students. Research by Mawardi (2023) and Othman et al. (2023) emphasize the importance of innovative teaching methods to achieve optimal learning outcomes.

The learning media chosen can influence how students understand, internalize and other concepts. Traditional media, such as textbooks and lectures, still effectively convey material. However, it is recommended that modern media, such as e-learning platforms, can increase student interactivity and engagement, especially in the current digital era (Suri, 2021). This provides an opportunity to enhance the student learning experience through interactive features and more flexible access to materials. However, other research warns that excessive reliance on modern media without paying attention to local context and student needs can result in a shallow understanding of learning material (Romadanti, 2023). This shows the importance of proper contextual understanding when using learning media.

The debate about the effectiveness of traditional and modern learning media shows that both types have an essential role. The wise and integrated use of traditional and modern media can increase learning effectiveness. Although modern media offers new possibilities in increasing interactivity and accessibility, their use must be balanced with deep contextual understanding to ensure profound and sustainable student learning experiences.

4. Student achievement

Factors influencing student academic achievement, including the quality of teaching and the use of learning media, are critical in improving learning outcomes. Recent research highlights the vital role of teacher training in using effective learning media to support student achievement. A study shows that teachers specially trained in using certain learning media, such as hypnoteaching, can improve students' academic achievement (Irzain et al., 2021). Hypnoteaching training helps teachers adopt more interactive and entertaining learning methods, thereby increasing student involvement in the learning process. Students taught by teachers trained in hypnoteaching show improved academic achievement.

Other research highlights the importance of media literacy for teachers in integrating various learning media into their teaching strategies (Sulistyo & Ismarti,

2022). Teacher training programs that include media literacy enable more effective use of different learning tools, such as video, gamification, and other digital resources. Teachers skilled in media literacy can create dynamic and responsive learning environments that suit student needs and contemporary challenges. Irzain & Sulistyo's research shows that teacher training using appropriate learning media can significantly improve student academic achievement. By strengthening pedagogical competencies and media literacy, teachers can create more meaningful and in-depth learning experiences for their students.

5. Contextual Factors Relationship between Teacher Training and Use of Learning Media with Student Learning Achievement at MAN Tulungagung

Research at MAN Tulungagung highlights that contextual factors such as the social environment, local culture, and availability of resources significantly impact the effectiveness of teacher training and the use of learning media. Understanding how to improve the quality of education is very important. However, research shows the challenges faced in implementing digital literacy in educational institutions, including MAN Tulungagung (Hasanah & Sukri, 2023). Modern learning media, such as digital technology, are often hampered by limited access to technological infrastructure in more remote or resource-limited educational environments. Besides that, Effective implementation of teaching strategies requires adequate teacher training and support. However, limited resources for training can hinder teachers' ability to adopt new technology and learning media.

Adapting teaching strategies and learning media according to local context is crucial to increase learning effectiveness. Research highlights the importance of considering and adapting learning strategies to local realities to achieve optimal results. The application of online-based learning methods must be adapted to the unique characteristics of the educational environment at the madrasah aliyah level (Nugroho, 2020). Effective learning strategies require a deep understanding of local culture and students' socio-economic challenges. In addition, teacher training programs must be designed in such a way that they can improve understanding and skills in integrating online-based learning media with specific educational contexts. Choosing the suitable learning media must also consider the available technological infrastructure and the level of accessibility in the educational environment concerned.

C. Method
1. Research methods

This research used quantitative methods with Correlation Studies (Creswell, 2012) to analyze the relationship between teacher training and the use of learning media on student learning achievement at MAN Tulungagung. Quantitative methods refer to research approaches that focus on collecting data that can be measured numerically and then analyzed using statistical techniques. This approach allows researchers to identify and analyze relationships between particular variables in the research. Correlational research is a research design in which researchers test the relationship between two or more variables without attempting to establish a cause-and-effect relationship between them. In this research, a correlational method was used to determine whether there was a statistically significant relationship between the observed variables, such as the relationship between teacher training participation, use of learning media, and student learning achievement. Using this method, researchers can explore the extent of the correlation between these

variables and measure the strength and direction of the relationship. This allows researchers to understand how certain factors may be interconnected in the research context, thereby providing better insight into classroom dynamics or the dynamics of the educational environment.

2. Variable

The research variables included two independent variables, namely teacher training (X1) and use of learning media (X2), as well as one dependent variable, namely student learning achievement (Y). Teacher training (X1) was measured through several indicators, including participation in professional training, understanding of educational concepts, and proficiency in applying effective learning methods. Meanwhile, the use of learning media (X2) was measured through the frequency of using learning media in learning, creativity in designing learning materials using media, and student responses to the use of learning media. Meanwhile, the dependent variable, student learning achievement (Y), was measured through student academic grades, students' level of understanding of the material, and student participation in learning activities.

3. Population and Sample

This research involved a population of 243 teachers at MAN Tulungagung. Sampling was conducted using the Solvin formula with an error rate of 5%. The Solvin formula used is n = N / (1 + Ne^2), where n is the number of samples required, N is the population (243 teachers), and e is the error rate (0.05) (Sekaran, 2016). After these values are substituted into the formula, the result is n = N / (1 + Ne^2) = 243 / (1 +(243(0.05^2))) = 151.03= 151. Therefore, the research's sample size is around 151 teachers.

The research instrument development process involved a series of rigorous steps to ensure the reliability and accuracy of the data collected. The first step was to identify the variables to be measured, especially those related to teacher training and the use of learning media. After that, questions were carefully selected for each variable, ensuring they accurately measure the desired concept. The selected questions were then compiled into a research instrument, namely a questionnaire, where each variable had several relevant questions. This instrument was then validated by experts or experts to ensure that the questions can measure the construct being appropriately asked. If necessary, the instrument was revised based on input from the validation process. After going through this process, the instrument was tested on a few respondents to assess its effectiveness in data collection. Based on the test results, the instrument was further refined if necessary to ensure its quality before being applied to a more extensive research sample.

In this research, the number of items used for each variable measured has been determined. For the Teacher Training variable, there were 15 items, which included satisfaction with training material (5 items), understanding of new concepts (5 items), skills acquired after training (3 items), and effectiveness of training in improving the quality of learning (2 items). Meanwhile, the variable of Use of Learning Media has 20 items, which includes frequency of media use (8 items), type of media used (5 items), perception of media effectiveness in increasing students' understanding (3 items), and level of student involvement when using media (4 items). The variable of Student Academic Achievement consisted of 10 items, which included Knowledge and Understanding (3 items), Attitudes and Values (4 items), and Practical Skills (3 items). The number of items for the three variables was 45 items.

Data was collected by distributing questionnaires to respondents randomly selected from a predetermined sample. They were sent via Google Forms, in which each teacher was asked to fill out a questionnaire according to the guidelines provided. Each teacher independently filled out the questionnaire via Google Forms. The questionnaire assessment scale used a Likert scale (Budiaji, 2018) .

Validity Test

A validity test is a process to assess the extent to which a measurement instrument measures what is intended or the construct it is designed to measure (Stockemer, 2019). The primary function of validity testing is to ensure that the measuring instruments used in research can measure the variables in question precisely and accurately. The Pearson correlation formula was used to measure the relationship between items in the questionnaire. The formula is (Sugiyono, 2017)

$$.r_{xy} = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{\{\sum X^2 - (\sum x)^2\}\{\sum Y^2 - (\sum y)^2\}}}$$

Reliability Testing

Reliability testing is a process to assess the extent to which a measurement tool or instrument can provide consistent and reliable results when used repeatedly on the same population or sample. The primary function of reliability testing is to assess the stability and consistency of a measuring instrument in measuring the same variable from time to time, from researcher to researcher, or from one piece of equipment to another. Cronbach's Alpha formula was used to measure the internal reliability of the measuring instruments. (Sugiyono, 2019) . The formula is:

$$r_{11} = \left[\frac{k}{k-1}\right]\left[1 - \frac{\sum \sigma_b^2}{V_t^2}\right]$$

Data analysis

Linear Regression Analysis: Linear regression analysis is a statistical method used to understand the relationship between one or more independent (explanatory) variables and one dependent variable (which is to be explained). In the context of research on the relationship between teacher training and the use of learning media on student learning achievement at MAN Tulungagung, linear regression analysis can determine how much influence learning strategies and learning evaluation have on student learning achievement (Sekaran, 2016). Linear Regression Formula: Y=β0+β1 X +ε

Multiple Regression Analysis: Multiple regression analysis is a statistical method similar to linear regression analysis but with the addition of more than one independent variable in the regression model. In the context of research on the relationship between teacher training and the use of learning media on student learning achievement at MAN Tulungagung, multiple regression analysis can be used to understand how significant the relationship is between teacher training and the use of learning media while controlling for the influence of other variables that might influence student achievement. The formula is: Y=β0+β1X1+β2X2+...+β nXn+ε

Research Framework

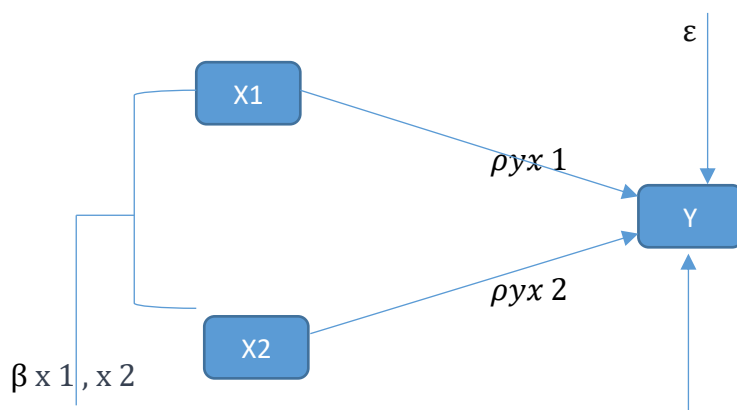*Figure 1 Research Framework*

ε (Epsilon): In this context, ε refers to random error in a model or analysis used to study the relationship between teacher training, use of instructional media, and student achievement.

ρyx **1**: Refers to the correlation coefficient between the student achievement variable (y) and the teacher training variable (x1). This can show how strong and in what direction the linear relationship is between teacher training and student achievement.

ρyx **2**: Correlation coefficient between student achievement variable (y) and learning media use variable (x2). This can show how strong and in what direction the linear relationship is between the use of learning media and student achievement.

β x1,x2: In this context, β x1,x2 can refer to the regression coefficients in a multiple regression model used to study the relationship between teacher training, use of learning media, and student achievement. This coefficient shows the relative contribution of teacher training (x1) and use of learning media (x2) to the dependent variable, namely student achievement.

D. Results

1. Validity test

Table 1. Validity Test Results

Variable	Product Moment Correlation	p-value
Teacher Training (X1)	0.78	< 0.001
Use of Learning Media (X2)	0.82	< 0.001
Student Achievement (Y)	0.75	< 0.001

From the results of the validity test, it was obtained that the product-moment correlation value of Teacher Training (X1) is 0.78, while the Use of Learning Media (X2) is 0.82, and Student Learning Achievement (Y) is 0.75. All correlation values show a reasonably strong relationship. The significance (p-value) of all these correlations is also very low, namely less than 0.001. This indicates that the observed variable correlations are statistically significant. Thus, it can be concluded that the instrument used to measure teacher training, use of learning media, and student learning achievement at MAN Tulungagung has adequate validity. The results of this

validity test provide confidence that the instrument can be relied on in analyzing relationships in this research.

2. Trust test

Table 2. Reliability Test Results

Variable	Number of Items	Cronbach's Alpha
Teacher training	15	0.87
Use of Learning Media	20	0.92
Student achievement	10	0.85

The results of the reliability test show that the research instrument has a high level of consistency in measuring the observed variables. The variable "Teacher Training" has a Cronbach's alpha of 0.87, which indicates that the 15 question items in the instrument together provide consistent results. Likewise, the variable "Use of Learning Media" has Cronbach's alpha of 0.92, which shows that the 20 question items in the instrument also have high consistency. Meanwhile, the variable "Student Achievement" also indicates a good level of reliability, with a Cronbach's alpha of 0.85. This confirms that the 10 question items used to measure student learning achievement are reliable in producing consistent data. Thus, the reliability test results provide confidence that this research instrument can be used effectively to measure the variables studied with high consistency.

3. Linear Regression

The Relationship Between Teacher Training (X1) and Student Achievement (Y) in MAN Tulungagung

Table 3. Test results of linear regression analysis of the relationship between teacher training (X1) and student achievement (Y)

Variable	Regression Coefficient (β)	p-Value
Intercept (c)	65.12	<0.001
Teacher Training (X1)	0.37	0.025

Linear regression analysis for the relationship between teacher training (X1) and student achievement (Y) at MAN Tulungagung resulted in significant findings. First, the intercept (c) has a value of 65.12 with a p-value of less than 0.001, indicating that when teacher training (X1) has a value of zero, the predicted student achievement (Y) will have a value of 65.12. Furthermore, the regression coefficient for the teacher training variable (X1) is 0.37, with a p-value of 0.025. A p-value less than the 0.05 significance level indicates that the relationship between teacher training and student achievement is statistically significant. This means that every one-unit increase in the teacher training variable (X1) will be followed by an increase of 0.37 units in student achievement (Y). These findings indicate that teacher training has a significant positive influence on student achievement at MAN Tulungagung. Thus, the results of linear regression analysis show a significant relationship between teacher training and student achievement at MAN Tulungagung.

The Relationship Between the Use of Learning Media (X2) and Student Achievement (Y) in MAN Tulungagung

Table 4. Test results of linear regression analysis of the relationship between the use of learning media (X2) and student achievement (Y)

Variable	Regression Coefficient (β)	p-Value
Intercept (c)	68.25	<0.001
Religious Learning Media (X2)	0.45	0.012

Linear regression analysis of the relationship between the use of learning media (X2) and student achievement (Y) at MAN Tulungagung resulted in the following findings. First, the intercept (c) has a value of 68.25 with a p-value of less than 0.001, indicating that when the use of learning media (X2) has a value of zero, the predicted student achievement (Y) will have a value of 68.25. Furthermore, the regression coefficient for the variable use of learning media (X2) is 0.45, with a p-value of 0.012. A p-value less than the 0.05 significance level indicates that the relationship between the use of learning media and student achievement is statistically significant. This means that every one-unit increase in the variable use of religious learning media (X2) will be followed by an increase of 0.45 units in student achievement (Y). These findings indicate that the use of learning media has a significant positive influence on student achievement at MAN Tulungagung. Thus, the results of linear regression analysis show a significant relationship between the use of learning media and student achievement at MAN Tulungagung.

4. Multiple Regression

The Relationship between Teacher Training (X1) and Use of Learning Media (X2) on Student Learning Achievement (Y) in Man Tulungagung

Table 5. Multiple regression analysis test results of the relationship between teacher training (X1) and use of learning media (X2) on student learning achievement (Y)

Variable	Regression Coefficient (β)	p-Value
Intercept (c)	62.10	<0.001
Teacher Training (X1)	0.35	0.021
Learning Media (X2)	0.42	0.015

Results of multiple regression analysis of the relationship between teacher training (X1) and use of learning media (X2) on student learning achievement (Y) at MAN Tulungagung show essential findings. First, the intercept (c) has a value of 62.10 with a p-value of less than 0.001; this indicates that when teacher training (X1) and use of learning media (X2) is zero, then the predicted student learning achievement (Y) will have a value of 62.10. Furthermore, the regression coefficient for the teacher training variable (X1) is 0.35 with a p-value of 0.021, while the regression coefficient for the variable use of learning media (X2) is 0.42 with a p-value of 0.015. A p-value less than the 0.05 significance level indicates that the two independent variables, namely teacher training and use of learning media, have a statistically significant relationship with student learning achievement. This means that every one-unit increase in the teacher training variable (X1) will be followed by an increase in student learning achievement of 0.35 units (Y). Every one-unit increase in the

learning media use variable (X2) will be followed by an increase in student learning achievement with an increase of 0.42 units (Y). These findings indicate that teacher training and the use of learning media have a significant influence on student learning achievement at MAN Tulungagung when these two variables are entered into the regression model together. Thus, the multiple regression analysis results show a significant relationship between teacher training, use of learning media, and student learning achievement at MAN Tulungagung.

E. Discussion

This research provides an in-depth understanding of the importance of teacher training and the use of learning media in improving student achievement at MAN Tulungagung. The practical implication is the importance of improving the quality of teacher training and using innovative and effective learning media to achieve better student achievement. Teacher training is one of the key factors influencing the quality of education. Quality teacher training improves individual teacher performance and positively impacts student academic achievement (Hammond, 2017).

Teachers who receive good training can teach more effectively, design diverse learning, and manage the classroom well, contributing to increased student achievement. The role of quality teacher training has a significant impact on improving the overall quality of education. Teachers who have good training can teach more effectively, design diverse learning according to student learning styles, and manage the class well. These skills allow teachers to provide more meaningful learning experiences and meet students' individual learning needs. As a result, student achievement can increase in various aspects of learning.

Teacher professional development in the 21st-century educational context is critical. Quality training not only benefits individual teacher performance but also has a positive impact on student academic achievement (Hammond, 2006). This is supported by the theory of teaching effectiveness, as explained by Hattie in the concept of "visible learning", which emphasizes that quality teachers significantly influence student learning outcomes (Hattie, 2013). Teacher professional development is the key to creating sustainable change in teaching practices. By participating in relevant and meaningful training, teachers can gain new knowledge and skills that they can apply in the classroom to improve student learning (Guskey, 2002).

A strong relationship between teachers and students is also crucial in increasing student involvement in learning (Pianta et al., 2012). Furthermore, adequate supervision in supporting teacher professional development is critical. With good supervision, teachers can receive constructive input and get support in developing more effective teaching practices (Marzano, 2011). It is essential to conceptualise continuous teacher learning, where teachers engage in ongoing reflection on their teaching practices (Opfer & Pedder, 2011). The importance of understanding and recognizing teacher qualities is also highlighted by previous research, which identifies effective teaching qualities. Teachers with these qualities tend to influence student achievement significantly (Stronge, 2018). Policy support and reform are also needed in creating an environment that supports teacher professional development (Schleicher, 2016). Thus, it can be concluded that quality teacher training is critical in improving student achievement. The importance of innovation in the use of learning media is very significant in the context of modern education.

Using innovative and effective learning media enables the creation of a more exciting and meaningful learning environment for students. Teachers can create interactive, immersive, and varied learning experiences using technology and multimedia resources. The use of technology in learning has been proven to increase student learning motivation and provide a more interactive and exciting learning experience (Mayer, 2009). Teachers can illustrate visually and dynamically using videos, animations, or simulations, helping students understand the material more interestingly and impressively. Multimedia in learning can increase students' information retention more effectively than conventional learning (Clark & Mayer, 2023). Apart from that, innovative learning media can also increase student motivation towards learning.

Students' intrinsic motivation, namely motivation within the students themselves, can increase if they are involved in exciting and satisfying learning (Deci & Ryan, 2000). For example, teachers can help increase students' interest in learning by presenting religious material through exciting and interactive media. Using innovative learning media can also help improve students' understanding of lesson material. Using well-designed multimedia can help students understand complex concepts better than conventional teaching (Mayer, 2014).

Teachers can facilitate a more profound and sustainable learning process by providing students with access to learning activities through various media. Thus, it can be concluded that innovation in the use of learning media significantly contributes to improving the quality of learning. Support and development of creative and innovative learning strategies need to be a focus in teacher professional development in this field. Thus, these findings provide a deep understanding of the critical role of teacher training and the use of learning media in improving student learning achievement at MAN Tulungagung. The practical implication is the need to improve the quality of teacher training and use innovative and effective learning media to achieve better student achievement.

Research on the Relationship between Teacher Training and the Use of Learning Media on Student Learning Achievement at MAN Tulungagung has several limitations that need to be considered. First, the research results cannot be directly generalized to other contexts outside MAN Tulungagung. The limited sample size is also a limitation, so overall representativeness may not be fully covered. The data collection method using questionnaires is also susceptible to respondent bias and inaccurate filling. Limitations of the variables measured can also influence research conclusions. External factors, such as changes in school policy, can also influence research results but are difficult to control completely. Assessment of teacher training and use of instructional media is subjective, and limited research time may not capture long-term changes.

F. Conclusion

Based on research on the relationship between teacher training and the use of learning media on student learning achievement at MAN Tulungagung, it can be concluded that there is a significant positive relationship between teacher training and the use of learning media on student learning achievement. This can be interpreted that the better the teacher training and the more optimal the use of learning media, the possibility that student achievement will increase. These results show the importance of investing in teacher training as part of human resource development in educational institutions. Apart from that, the use of learning media

also needs to be considered and improved to increase learning effectiveness and student performance. This research provides practical implications that increasing teacher training and using more effective learning media can be a strategy to improve student learning achievement at MAN Tulungagung. Further efforts are needed to design relevant training programs and develop innovative teaching methods using learning media. Although the results of this study indicate a significant relationship between teacher training, use of learning media, and student achievement, further research may be needed to explore this further, such as identifying other factors that can influence student achievement and measuring the impact of training teachers directly towards increasing student achievement.

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