



The Influence Of Teacher Training And The Use Of Educational Technology On The Effectiveness Of Islamic Education Learning At Man 1 Bojonegoro

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ABSTRACT

This research aims to investigate how teacher training and the use of educational technology influence the effectiveness of Islamic education learning at MAN 1 Bojonegoro. The research method used is quantitative. The population studied was 90 teachers, with a sample of 74 respondents selected using the Solvin formula. Data was collected through a questionnaire with a Likert rating scale. Data analysis uses linear regression and multiple regression techniques. The research results show that teacher training (X1) has a significant influence on the effectiveness of Islamic education learning, with a regression coefficient (β) of 0.47, t-value of 4.21, and p-value < 0.001 . Likewise, the use of educational technology (X2) also has a very significant influence on the effectiveness of Islamic education learning, with a regression coefficient (β) of 0.52, t-value of 4.82, and p-value < 0.001 . Multiple regression analysis shows that the two variables, namely teacher training (X1) and use of educational technology (X2), together make a significant contribution to the effectiveness of Islamic education learning. Teacher training has a regression coefficient (β) of 0.42 with a t-value of 3.76 and p-value < 0.001 , while the use of educational technology has a regression coefficient (β) of 0.55 with a t-value of 4.92 and p-value < 0.001 . From these findings, it can be concluded that it is important to develop more in-depth teacher training programs and more effective integration of educational technology in the context of Islamic education learning. This highlights the need for further efforts to improve the quality of Islamic education learning at MAN 1 Bojonegoro through the integration of deeper teacher training and optimal use of educational technology.

Keywords: Teacher Training, Use of Technology, Educational Technology, Learning.

INTRODUCTION

Islamic education at State Madrasah Aliyah (MAN) has an important role in forming students' character, morals and understanding of religion. However, to ensure that the learning process is effective and relevant to current developments, teacher training and the use of educational technology need to be considered (Khaidir & Suud, 2020). Especially at MAN 1 Bojonegoro, where teacher training and the use of educational technology are still aspects that can be improved, this research is important to provide deeper insight into its influence (Ertmer et al., 2012).

Madrasah Aliyah Negeri (MAN) 1 Bojonegoro has a big responsibility in forming the young generation who have a solid foundation in understanding Islam and quality academic skills. Here, Islamic education not only focuses on a deep understanding of religion, but also on instilling Islamic moral and ethical values which are the basis for forming good personalities in students (Solihin et al., 2020). The role of MAN 1 Bojonegoro in

Islamic education is very important. More than just delivering religious material, MAN 1 Bojonegoro is responsible for forming students' characters with strong Islamic values. Islamic education here is the foundation for the formation of a generation with noble and responsible morals (Soleh, 2023).

Even though it has a vital role, Islamic education at MAN 1 Bojonegoro faces various challenges. Its task is not only to provide religious knowledge, but also to shape attitudes and behavior in accordance with Islamic teachings. This demands a holistic and integrated learning approach (Zeera, 2001). Islamic education at MAN 1 Bojonegoro is not limited to spiritual aspects, but also has the aim of improving students' academic quality. With a deep understanding of religion as a foundation, it is hoped that students can achieve success in academics and everyday life (Amirudin & Muzaki, 2019).

Apart from understanding religion and academic quality, Islamic education at MAN 1 Bojonegoro also aims to instill Islamic moral and ethical values in students' personalities. This is important in forming a character with integrity, fairness and responsibility in society (Biswas, 2014). Even though it has an important role, learning Islamic education at MAN 1 Bojonegoro faces various challenges. One of them is the lack of in-depth teacher training in teaching and the lack of integration of educational technology in the learning process (Ruggiero & J. Mong, 2015). Teacher training has a central role in improving the quality of learning (Efendi et al., 2023). Teachers who receive good training will be better able to implement learning methods that are innovative and relevant to current developments (Minarti, 2021). They can also better understand students' individual needs and design learning strategies that suit their needs (Sholeh, 2023).

Teachers who have undergone adequate training have the ability to provide variations in learning methods (Muzakki & Sholeh, 2023). They can use innovative approaches, such as project-based learning, group discussions, or problem-based learning, which can make learning more interesting and relevant for students (Zulkifli et al., 2023). Continuous teacher training equips them with the latest knowledge and skills in the field of education. In this way, teachers can remain relevant to current developments and technology, so they are able to integrate the latest tools and technology into learning (Minarti et al., 2022). Every student has different learning styles and needs. Well-trained teachers can be more sensitive to these differences and able to develop learning strategies that suit students' individual needs. This can increase the effectiveness of learning and strengthen teacher-student interactions in the teaching and learning process.

Teachers who have undergone adequate training will be more skilled in designing learning strategies that are in accordance with the curriculum and learning objectives. They can identify learning needs and goals, and design learning activities that support the achievement of these goals (Azah et al., 2024). Teacher training that includes the use of educational technology also has a significant impact in increasing learning effectiveness (Minarti, 2011). The integration of technology in learning allows teachers to create more interactive, dynamic and multimedia-based learning experiences, which can better attract students' attention and enrich the learning process (Haruna et al., 2024).

Educational technology, if used wisely, has great potential to increase the effectiveness of learning. Various digital learning media, applications and software can help teachers explain abstract concepts, provide variations in presenting material, and provide interactive opportunities for students to learn (Sholeh et al., 2024). Abstract concepts in Islamic education are often difficult for conventional students to understand. However, by using educational technology such as animation, simulations, or learning videos, teachers can illustrate these concepts more clearly and interestingly, thereby facilitating better understanding by students (Sunarso, 2015). The use of educational technology also allows teachers to present learning material in various creative and interesting ways. For example, teachers can use multimedia presentations, gamification, or game-based learning to enrich students' learning experiences and make them more interesting (Agustian & Salsabila, 2021).

Interactive applications and software can provide opportunities for students to be actively involved in the learning process. Through online quizzes, forum discussions, or interactive simulations, students can learn independently while remaining connected with their teachers and classmates, thereby enriching their learning experience (Suhardiana, 2019). The use of educational technology also helps students to develop the technological skills necessary in this digital era. By becoming familiar with using various applications and software, students can gain skills that will benefit them in their future personal and professional lives (Alimuddin et al., 2023).

This research will explore in depth the influence of teacher training and the use of educational technology on the effectiveness of Islamic education learning at MAN 1 Bojonegoro. The focus will include teachers' perceptions of the training they have received, the integration of technology in learning, and its impact on student academic achievement. It is hoped that the results of this research can provide valuable input for schools, teachers and other relevant stakeholders in improving the quality of Islamic education learning at MAN 1 Bojonegoro. By understanding the influence of teacher training and the use of educational technology, it is hoped that a more dynamic, interactive and effective learning environment will be created for students.

THEORETICAL REVIEW

The Role of Teacher Training in Improving the Quality of Learning

The role of teacher training in improving the quality of learning cannot be overstated. As viewed by Schön (1990), teacher learning theory highlights the importance of reflection and reflective practice in the development of teacher professionalism. In his work entitled "Educating the reflective practitioner", Schön emphasizes that teachers who are able to critically reflect on their learning practices have a greater possibility of improving the quality of their teaching (Schön, 1990). The concept of reflection introduced by Schön refers to teachers' ability to continuously consider their actions in the classroom, evaluate the success or failure of teaching methods, and adapt according to students' needs and changes in the learning context. Through this reflection process, teachers can develop deeper insight into the impact of their actions on students' learning processes.

In this classic work, John Dewey discusses the concept of reflection in an educational context and the importance of reflective thinking in the learning process. He explains how teachers who engage in reflective practice have the ability to actively identify effective teaching strategies and evaluate their impact on student learning. In addition, Dewey also highlighted how reflective practice helps teachers become lifelong learners who are open to innovation in education, as well as encouraging collaboration between teachers and a positive learning culture in schools (Dewey, 1933). Zeichner, K. M., & Liston, D. P. (2013). *Reflective teaching: An introduction*. Routledge. In this book, Zeichner and Liston discuss in depth the importance of reflection in teaching practice. They highlight how reflective practice helps teachers identify effective teaching strategies, evaluate their impact on student learning, and participate in ongoing professional development. In addition, they also highlight how reflection on learning practices can increase collaboration between teachers and form a positive learning culture in schools (Zeichner & Liston, 2013).

Furthermore, Korthagen (2001) emphasized the importance of the link between theory and practice in teacher training. In his work entitled "Linking Practice and Theory: The Pedagogy of Realistic Teacher Education", he describes how effective teaching is not only based on theoretical understanding, but also on the teacher's ability to link theory with practical experience in the classroom (Korthagen et al., 2001). Thus, teacher training that focuses on reflection on their learning practices not only helps teachers understand learning theories better, but also improves their ability to apply these theories relevantly and effectively in classroom contexts. As a result, teachers who have undergone such training tend to be more effective in facilitating meaningful and meaningful learning processes for their students.

Technology Integration in Learning

Technology integration in learning is a concept that combines the use of technology (T), pedagogical knowledge (P), and content knowledge (C) to create an effective learning experience. The TPACK (Technological Pedagogical Content Knowledge) theory, developed by Mishra and Koehler in 2006, is an important framework in understanding how teachers can integrate technology effectively in the learning process (Koehler & Mishra, 2009). TPACK theory highlights the importance of teachers having a holistic understanding of how to use technology in a learning context that is appropriate to the subject matter and student needs. TPACK components consist of three main dimensions:

- ✓ Technological knowledge (T): This includes teachers' understanding of available technological tools and applications, as well as their ability to use these technologies effectively in learning. Teachers need to understand the various technology tools and platforms available, and how to select and adapt them according to learning needs.
- ✓ Pedagogical knowledge (P): This includes the teacher's understanding of learning principles and effective teaching strategies. Teachers need to have skills in designing and implementing interesting and meaningful learning strategies using technology, as well as understanding how technology can be used to support students' learning processes.
- ✓ Content knowledge (C): This includes the teacher's understanding of the subject matter being taught. Teachers need to be able to integrate technology appropriately in the context of specific subject matter, so that they can increase students' understanding of the concepts being taught.

Teachers who have strong TPACK tend to be more able to utilize educational technology effectively in learning. They can design and implement interesting and relevant learning activities using various technological tools and applications, thereby increasing student motivation and engagement in learning. By implementing the TPACK concept, teachers can be more flexible and creative in presenting learning material, and can provide a more meaningful and relevant learning experience for students. Teachers who have strong TPACK will be able to integrate technology well in learning, thereby increasing student learning motivation, facilitating deeper understanding of subject matter, and stimulating creativity and collaboration among students.

In the classroom context, technology integration is not limited to using software or technological tools as an addition to conventional learning, but rather to creating deep, problem-based learning experiences. Teachers with strong TPACK can design technology-based projects or assignments that allow students to conduct

independent exploration, collaborate, and make connections between the concepts learned and the real world. In addition, teachers trained in TPACK are also able to evaluate and improve the use of technology in their learning based on feedback from students and the results of learning evaluations. They can identify the strengths and weaknesses of the technology approach used, as well as make the necessary adjustments to increase the effectiveness of learning.

Effective Use of Technology

The effectiveness of the use of technology in Islamic education learning has become an increasingly relevant research focus. Research conducted by Alshammari et al. (2017) investigated the impact of using technology in Islamic education learning, especially the use of WhatsApp Messenger as a learning aid. The results of their research show that the integration of technology, in this case WhatsApp Messenger, can increase students' learning motivation and their academic results in the context of Islamic education learning in Saudi Arabia (Alshammari et al., 2017). They suggest that the use of educational technology should be adapted to the context and learning needs. This emphasizes the importance of teachers paying attention to the context and characteristics of students as well as learning materials when deciding to use technology in the learning process. By paying careful attention to these factors, teachers can ensure that the use of technology can have a positive impact on Islamic education learning.

A study by Ranchi (2017) examined the use of WhatsApp in a learning context. They found that using WhatsApp as a learning tool can improve students' academic achievement and their attitudes towards learning. WhatsApp allows faster and easier interaction between students and teachers, and facilitates collaborative and communication-based learning (Ranchi, et al., 2017). Amry (2014) studied the factors that influence student acceptance of mobile-based learning systems (m-learning) in Saudi Arabia (Amry, 2014). They found that factors such as usability, ease of use, and trust had a significant effect on students' acceptance of m-learning. These findings show the potential of mobile technology in improving Islamic education learning in Saudi Arabia. Through this we can see that the use of technology, especially mobile-based platforms such as WhatsApp, can provide significant benefits in the context of Islamic education learning. This shows the importance of carefully considering the integration of technology in learning design in order to increase student learning motivation and achievement and support teacher professional development in the context of Islamic Education.

Innovative Learning Model

Innovative learning models have become the focus of attention in the development of Islamic education. One of the innovative learning models that stands out is the flipped classroom, as well as blended learning which integrates face-to-face learning and online learning. The flipped classroom learning model changes class dynamics by moving lecture material from class time to outside class (usually through videos or reading materials). In class, time is used for discussion, collaboration, and independent application of concepts that have been learned. Research by Zainuddin & Halili (2016) found that the application of the flipped classroom model in Islamic education learning can increase student motivation and their learning outcomes (Zainuddin & Halili, 2016).

The blended learning model combines elements of face-to-face learning with online learning. Teachers use technology to provide materials, interactions and feedback to students, while students have the flexibility to access learning materials anytime and anywhere. Blended learning allows teachers to adapt learning according to student needs and facilitates student-centered learning (Hamzah et al., 2022). Another innovative learning approach is active learning, where students are actively involved in the learning process through discussions, projects, simulations, or experiments. This model emphasizes the active role of students in building their own understanding and knowledge through direct experience. PBL is a learning approach in which students identify, analyze and solve real problems in a learning context. This model encourages students to develop problem solving, critical thinking, and collaborative skills (Anwar, 2017). The cooperative learning model encourages cooperation between students in achieving joint learning goals. Through group discussions, collaborative projects, or role plays, students learn to work together, appreciate diversity of opinion, and build social skills (Ahmed Ali Sulaiman & Singh Thakur, 2022).

The Effect of Teacher Training on Learning Effectiveness

Teacher training has an important role in increasing the effectiveness of Islamic education learning. In-depth teacher training in learning methods and content knowledge can have a positive impact on learning effectiveness. Comprehensive teacher training covers various aspects, including a deep understanding of Islamic Education teaching materials, skills in designing and delivering engaging lessons, and the ability to understand and respond effectively to student needs. With adequate training, teachers can improve the quality of their teaching, create a conducive learning environment, and help students achieve better learning outcomes. Teacher training can also increase their motivation and commitment to the profession. Teachers who receive continuous training tend to be more motivated to improve the quality of their teaching and engage in ongoing professional development. The positive impact of teacher training on the effectiveness of Islamic Education learning can also be seen in increased student participation, increased understanding of religious concepts, and

improved academic outcomes overall. Harris & Sass (2017). This study explores the impact of teacher training on the quality of education in Egyptian primary schools. The results show that effective teacher training contributes significantly to improving the quality of education, including in the context of Islamic education. Well-trained teachers have better abilities in delivering material and facilitating student-centered learning (Harris & Sass, 2011).

Nzarirwehi & Atuhumuze (2019). This study investigates the impact of teacher training programs on the quality of education in primary schools in Türkiye. Findings show that good teacher training has a positive impact on the overall quality of education. Training that is relevant to the content and teaching methods of Islamic Education can help increase the effectiveness of learning and student achievement (Nzarirwehi & Atuhumuze, 2019). Abnisa (2023). This research examines the effect of teacher training programs on the competency of Islamic Education teachers. The results show that good teacher training contributes to increasing teacher competence in teaching Islamic Education. Teachers who receive adequate training have a better understanding of teaching materials and better skills in designing effective learning (Abnisa, 2023). Teacher training that focuses on developing professional competencies contributes to improving the quality of learning and student achievement. Well-trained teachers have better skills in delivering material and responding effectively to student needs.

This theoretical review provides a strong foundation for understanding the influence of teacher training and the use of educational technology on Islamic education learning at MAN 1 Bojonegoro. By considering relevant theories and research, this research can provide deeper insight into how to increase the effectiveness of Islamic education learning in these schools.

METHOD

Technique, Population and Sample

This research method uses a quantitative approach with a focus on the relationship between variables (Creswell, 2012). To determine a representative sample size, a sampling technique was used using the Slovin formula with a margin of error of 0.05. Slovin's formula, applied in this study, is $n = N / (1 + (N \times e^2))$, where n is the required sample size, N is the population size (i.e. 90 teachers), and e is the margin of error (0.05). By substituting the values into the formula, we get a result of approximately 73.47. In practice, we usually round the result up to 74 to ensure sample adequacy in this study. Thus, the required sample size is around 74 teachers from a population of 90 to obtain representative results in the analysis of relationships between variables.

Research variable

The research variables in this study consist of two independent variables and one dependent variable which are used to analyze the effect of teacher training and the use of educational technology on the effectiveness of Islamic education learning. The first independent variable is Teacher Training (X_1), which can be measured through several indicators, such as participation in training or workshops organized by educational institutions or related parties, level of mastery of training material, and application of skills acquired in classroom learning. The second independent variable is Use of Educational Technology (X_2), which can be measured through indicators such as frequency of use of technology in the learning process, availability and skills in using technological devices, as well as integration of technology in planning and implementing learning. The dependent variable in this research is the Effectiveness of Islamic Education Learning (Y), which is measured through indicators such as student achievement of learning outcomes, level of understanding and application of Islamic religious values, level of student participation and involvement in Islamic religious learning, as well as assessment of the quality of Islamic religious learning from the teacher or observer. By identifying and measuring these variables, this research aims to determine the influence of teacher training and the use of educational technology on the effectiveness of Islamic education learning.

Data Collection Techniques and Research Instruments

Data collection was carried out by distributing questionnaires to all respondents via Google Form. An explanation of the research objectives and instructions for filling out the questionnaire are included so that respondents understand well and can fill out the questionnaire correctly. To collect data in this study, we used a structured questionnaire which included questions related to teacher training, the use of technology in learning, and the effectiveness of Islamic Education learning. Respondents were asked to rate the level of agreement or disagreement with the statements presented using a Likert scale. To ensure that this questionnaire is valid and reliable, we tested the validity and reliability of the instrument. The validity of the instrument is tested through the Product Moment test. The formula used is as follows: (Sugiyono, 2017). $r_{xy} =$

$$r_{11} = \left[\frac{k}{k-1} \right] \left[1 - \frac{\sum \sigma_b^2}{V_t^2} \right]$$
 while its reliability was tested through the Cronbach's alpha test. (Sugiyono, 2019). The formula is: By conducting this test, we can ensure that our questionnaire actually measures the variables under study well and provides consistent results.

Data analysis

To carry out linear data analysis and multiple data analysis, we used SPSS version 25 software. Linear regression analysis was used to measure the influence of each independent variable on the dependent variable individually. This analysis helps in knowing how much each variable contributes to the dependent variable. The Linear Regression Formula used is: $Y = \beta_0 + \beta_1 X + \epsilon$

Multiple regression analysis was carried out to measure the influence of the two independent variables together on the dependent variable. This analysis makes it possible to find out how much influence the combination of the two independent variables has on the dependent variable. The formula is: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon$

Research framework

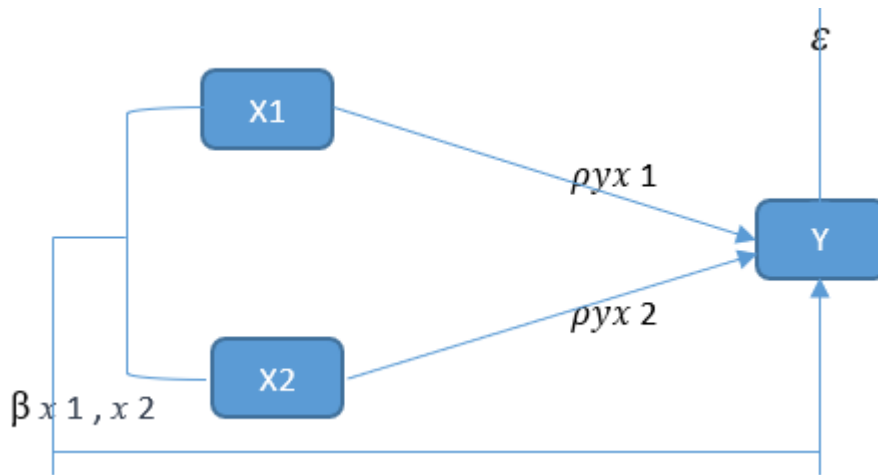


Figure 1 . reseach framework

RESULTS

Validity test

Table 1. Validity Test Results

Variable	Product Moment Correlation
Teacher Training (X1)	0.68
Use of Educational Technology (X2)	0.72
Effectiveness of Islamic Education Learning (Y)	0.75

The results of the validity test provide an overview of the relationship between the variables in the research, namely teacher training (X1), use of educational technology (X2), and effectiveness of Islamic education learning (Y). Product moment correlation is used to evaluate how strong the relationship is between two variables, measured by correlation values ranging from -1 to +1. A correlation value close to +1 indicates a strong positive relationship, while a value close to -1 indicates a strong negative relationship. Values close to 0 indicate the absence of a significant linear relationship between variables. From the test results we can see that the correlation value between teacher training and the effectiveness of Islamic Education learning is 0.68, while between the use of educational technology and the effectiveness of Islamic Education learning is 0.72. Both correlation values are statistically significant (indicated by p-value <0.001), indicating that the instrument used has strong validity in measuring the relationship between these variables.

Reliability Test

Table 2. Reliability Test Results

Research variable	Number of Items	Cronbach's Alpha
Teacher Training (X1)	10	0.85
Use of Educational Technology (X2)	8	0.78
Effectiveness of Islamic Education Learning (Y)	12	0.89

The results of the reliability test show a fairly high Cronbach's alpha value for all variables in this study, namely 0.85 for teacher training (X1), 0.78 for the use of educational technology (X2), and 0.89 for the effectiveness of Islamic education learning (Y). Cronbach's alpha is a method commonly used to measure the internal consistency of a measurement instrument or scale. A Cronbach's alpha value close to 1 indicates a high level of

consistency in measuring this variable. In this context, a high Cronbach's alpha value indicates that each item or question in the research instrument correlates well with each other and consistently measures the same concept so that the instrument used in the research has an adequate level of reliability and can be relied upon to measure the variables studied. .

Linear Regression Analysis

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Table 3. Results of Linear Regression Analysis

Research variable	Regression Coefficient (β)	T-Value	P-Value	Information
Intercept (Constant)	0.32	2.56	0.013	Significant ($P < 0.05$)
Teacher Training (X_1)	0.47	4.21	< 0.001	Highly Significant ($P < 0.001$)

The results of linear regression analysis show that there is a significant relationship between the teacher training variable (X_1) and the Islamic Education learning effectiveness variable. In the linear regression analysis table, the regression coefficient (β) for teacher training (X_1) is 0.47. A positive regression coefficient value indicates that there is a positive relationship between teacher training and the effectiveness of Islamic education learning. This means that the higher the level of teacher training, the higher the level of effectiveness of Islamic education learning. The t-value test results show that the t-value for teacher training is 4.21, with a very significant significance value (p-value), namely < 0.001 . This shows that the teacher training variable has a statistically significant influence on the effectiveness of Islamic education learning. The intercept (constant) also shows significant significance ($P < 0.05$), with a regression coefficient of 0.32 and a t value of 2.56. This shows that even without the teacher training factor, there is a significant influence on the effectiveness of Islamic education learning. Thus, these findings confirm that teacher training has an important role in increasing the effectiveness of Islamic education learning. The better the training given to teachers, the more effective Islamic education learning can be realized. Therefore, these results provide important implications for the development of educational policies and human resource management in Islamic educational institutions.

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Table 4. Linear Regression Analysis

Research variable	Regression Coefficient (β)	T-Value	P-Value	Information
Intercept (Constant)	0.28	2.36	0.021	Significant ($P < 0.05$)
Use of Educational Technology (X_2)	0.52	4.82	< 0.001	Highly Significant ($P < 0.001$)

From the results of the linear regression analysis carried out, it can be concluded that there is a significant relationship between the use of educational technology (X_2) and the effectiveness of Islamic education learning. The variable use of educational technology (X_2) has a regression coefficient (β) of 0.52. A positive regression coefficient value indicates that the higher the level of use of educational technology, the higher the level of effectiveness of Islamic education learning. The results of the t-value test show that the t-value for the variable use of educational technology is 4.82, with a very significant significance value (p-value), namely < 0.001 . This shows that the variable use of educational technology has a statistically significant influence on the effectiveness of Islamic education learning. The intercept (constant) also shows significant significance ($P < 0.05$), with a regression coefficient of 0.28 and a t value of 2.36. This shows that even without the use of educational technology, there is a significant influence on the effectiveness of Islamic education learning. Thus, these findings confirm that the use of educational technology has an important role in increasing the effectiveness of Islamic education learning. The more optimal the use of educational technology, the more effective Islamic education learning can be realized. Therefore, these results provide important implications for the development of educational policies and the integration of technology in the learning process in Islamic educational institutions.

Multiple Regression Analysis

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Table 5. Multiple Regression Analysis

Research variable	Regression Coefficient (β)	T-Value	P-Value	Information
Intercept (Constant)	0.25	2.10	0.037	Significant ($P < 0.05$)
Teacher Training (X1)	0.42	3.76	< 0.001	Highly Significant ($P < 0.001$)
Use of Educational Technology (X2)	0.55	4.92	< 0.001	Highly Significant ($P < 0.001$)

From the results of the multiple regression analysis carried out, it can be seen that the two research variables, namely teacher training (X1) and use of educational technology (X2), have a significant influence on the effectiveness of Islamic education learning (Y). The teacher training variable (X1) has a regression coefficient (β) of 0.42, with a t value of 3.76, and a very significant significance value (p-value), namely < 0.001 . This shows that teacher training has a statistically significant influence on the effectiveness of Islamic education learning. The variable use of educational technology (X2) has a regression coefficient (β) of 0.55, with a t value of 4.92, and a significance value (p-value) which is also very significant, namely < 0.001 . This shows that the use of educational technology also has a statistically significant influence on the effectiveness of Islamic education learning. The intercept (constant) also shows significant significance ($P < 0.05$), with a regression coefficient of 0.25 and a t value of 2.10. This shows that even without teacher training and the use of educational technology, there is a significant influence on the effectiveness of Islamic education learning. Thus, these results indicate that both teacher training and the use of educational technology have an important role in increasing the effectiveness of Islamic education learning together. These two factors support each other and together can increase the effectiveness of Islamic education learning in these educational institutions.

DISCUSSION

The Influence of Teacher Training and the Use of Educational Technology on the Effectiveness of Islamic Education Learning at MAN 1 Bojonegoro

From the results of linear regression analysis, the teacher training variable (X1) has a regression coefficient (β) of 0.47 with a t-value of 4.21 and p-value < 0.001 . This shows that there is a significant relationship between teacher training and the effectiveness of Islamic education learning at MAN 1 Bojonegoro. The positive regression coefficient indicates that the higher the level of teacher training, the higher the learning effectiveness. The results of linear regression analysis show that the variable use of educational technology (X2) has a regression coefficient (β) of 0.52 with a t-value of 4.82 and p-value < 0.001 . This indicates that there is a very significant relationship between the use of educational technology and the effectiveness of Islamic education learning at MAN 1 Bojonegoro. A positive regression coefficient indicates that the more educational technology used, the higher the learning effectiveness. From the results of multiple regression analysis, the two variables, namely teacher training (X1) and use of educational technology (X2), have significant regression coefficients. Teacher training has a regression coefficient (β) of 0.42 with a t-value of 3.76 and p-value < 0.001 , while the use of educational technology has a regression coefficient (β) of 0.55 with a t-value of 4.92 and p-value < 0.001 . This shows that these two variables together make a significant contribution to the effectiveness of Islamic education learning at MAN 1 Bojonegoro.

From the results of linear regression and multiple regression analysis, it can be concluded that teacher training and the use of educational technology both have a significant influence on the effectiveness of Islamic education learning at MAN 1 Bojonegoro. Teacher training has a key role in increasing the effectiveness of Islamic education learning. Teachers who have undergone adequate training tend to have better skills in designing and delivering learning materials in an engaging and effective way. Research by Taja et al found that in-depth teacher training in learning methods and content knowledge can improve learning effectiveness (Taja et al., 2021). The use of educational technology also has a significant impact on the effectiveness of Islamic education learning. The integration of technology in learning can increase student engagement, expand access to educational resources, and create an interactive and engaging learning environment. Research by Damanik (2020) shows that the use of educational technology can increase students' learning motivation and their academic results (Damanik, 2020). The combination of teacher training and the use of educational technology can make a greater contribution to increasing the effectiveness of Islamic education learning than using just one variable alone. Research by Ali (2022) highlights the effectiveness of implementing the flipped classroom model which integrates technology in Islamic education learning (Ali, 2022). Increased Student Engagement: Teacher training accompanied by the use of educational technology can increase student engagement in the learning process. With the use of technology, teachers can create a more interactive and interesting learning

experience for students. Research by Smith & Sheridan (2019) shows that effective teacher training has a positive impact on student engagement in learning (Smith & Sheridan, 2019). The combination of adequate teacher training with the use of educational technology can have a positive impact on student academic outcomes. By presenting learning materials innovatively through technology, teachers can help students achieve better academic achievements. Avci & Aksu's (2019) research shows that effective teacher training contributes to improving student academic outcomes (Avci & Aksu, 2019). Adequate teacher training also has an impact on improving teachers' teaching skills. Teachers who have undergone effective training tend to have better abilities in designing and delivering learning materials effectively. Research by Christoforidou, M., & Kyriakides, L. (2021) shows that effective teacher training contributes to improving teachers' teaching skills (Christoforidou & Kyriakides, 2021). The combination of teacher training and the use of educational technology can improve the overall quality of learning. By combining innovative teaching techniques with technological resources, teachers can create more engaging and meaningful learning experiences for students. Research by Siddik et al. (2017) shows that teacher training that focuses on developing professional competencies contributes to improving the quality of learning (Siddik et al., 2017). Teacher training supported by the use of educational technology can help improve students' understanding of Islamic education material. By using technology to present material in an interactive and interesting way, teachers can facilitate deeper and more contextual understanding. Research by Suparjo (2021) shows that good teacher training contributes to increasing students' understanding of Islamic education material (Suparjo, 2021). Teacher training supported by the use of educational technology can also help in developing students' critical and analytical thinking skills. By using technology to present material that triggers reflective thinking and analysis, teachers can help students develop higher-order thinking skills. Research by Mahfudz & Sukarno (2023) shows that effective teacher training contributes to the development of students' critical thinking skills (Mahfudz & Sukarno, 2023). A combination of teacher training and the use of educational technology can also help in developing students' collaboration and communication skills. By using technology to facilitate online discussions and collaborative projects, teachers can help students develop important social skills. Research by Osman (2020) shows that the use of cooperative learning strategies can improve students' collaboration abilities in the context of Islamic education (Osman, 2020).

Therefore, it is recommended to improve teacher training and the use of educational technology as an effort to increase the effectiveness of Islamic education learning at MAN 1 Bojonegoro. Teacher training is an important aspect because trained teachers will be better able to deliver material well, use appropriate teaching methods, and understand students' individual needs. In this training, teachers can be introduced to innovative teaching strategies, effective learning assessment, as well as a deeper understanding of the relevant curriculum. Apart from that, the use of educational technology is also an important solution. Technology, such as interactive learning software, online learning platforms, and multimedia, can make learning more interesting and relevant for students. By utilizing this technology, teachers can personalize the learning experience according to students' individual needs and ensure that education keeps up with the times. The use of technology also helps increase student involvement in learning, because it presents material in a more interactive and interesting way. Thus, the combination of good teacher training and the use of appropriate educational technology will be an effective strategy in increasing the effectiveness of Islamic Education learning at MAN 1 Bojonegoro, ensuring that students receive quality education that is relevant to the demands of the times.

CONCLUSION

Based on linear regression and multiple regression analysis regarding the influence of teacher training and the use of educational technology on the effectiveness of Islamic education learning at MAN 1 Bojonegoro. It was found that teacher training had a significant influence on the effectiveness of Islamic education learning in the school. The results of the analysis show that teachers who receive higher intensity training tend to have better abilities in managing classes, delivering material, and designing effective learning strategies. This is indicated by the positive regression coefficient and high statistical significance (p -value < 0.001), confirming the importance of investment in teacher skills development. The use of educational technology also has a significant impact on the effectiveness of Islamic education learning. It was found that the more educational technology is used in the learning process, the higher the learning effectiveness achieved. The integration of technology in learning can provide variety in the delivery of material, increase student engagement, and expand access to learning resources. This is reflected in the positive regression coefficient and high statistical significance (p -value < 0.001), confirming that technology can be an effective tool in improving the quality of education. Multiple regression analysis shows that the combination of teacher training and the use of educational technology makes a greater contribution to the effectiveness of Islamic education learning compared to relying on just one factor alone. Combining the two produces a significant impact, which is indicated by a positive regression coefficient and high statistical significance for both variables (p -value < 0.001). Therefore, it is recommended to develop a program that integrates teacher training and the simultaneous use of educational technology as a strategy to increase learning effectiveness at MAN 1 Bojonegoro. Improving the quality of teacher training and the use of educational technology can not only

improve student academic achievement but also has the potential to shape the character and competencies needed in today's digital era. By paying attention to these findings, educational policy makers can design more effective strategies to improve the quality of Islamic education at MAN 1 Bojonegoro, which in turn can have a positive impact on the formation of a more qualified and competitive young generation.

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