

# Innovation of Learning Methods in Islamic Education Management Applying Gamification to Increase Learning Interest

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## Abstrak

Metode pembelajaran dalam pendidikan Islam masih banyak menggunakan pendekatan konvensional, seperti ceramah dan hafalan, yang terkadang kurang efektif dalam menarik minat siswa. Di era digital saat ini, diperlukan inovasi dalam strategi pembelajaran agar lebih interaktif dan menarik. Salah satu pendekatan yang mulai banyak diterapkan adalah gamifikasi, yaitu penggunaan elemen permainan dalam proses belajar untuk meningkatkan keterlibatan dan motivasi siswa. Penelitian ini bertujuan untuk menganalisis efektivitas penerapan gamifikasi dalam meningkatkan minat belajar siswa di lingkungan pendidikan Islam. Menggunakan metode mixed-method, penelitian ini menggabungkan pendekatan kuantitatif dan kualitatif. Pendekatan kuantitatif dilakukan melalui pretest dan posttest dengan uji statistik Paired Sample T-Test dan N-Gain untuk melihat perubahan skor motivasi siswa. Sementara itu, pendekatan kualitatif dilakukan melalui wawancara dan observasi untuk memahami pengalaman siswa serta tantangan yang dihadapi guru dalam menerapkan gamifikasi. Hasil penelitian menunjukkan bahwa terdapat peningkatan signifikan dalam motivasi belajar siswa setelah penerapan gamifikasi, dengan rata-rata skor pretest 56,42 meningkat menjadi 60,18 pada posttest. Uji N-Gain menunjukkan peningkatan dalam kategori rendah menuju sedang. Dari analisis kualitatif, ditemukan bahwa siswa lebih tertarik dan termotivasi dalam pembelajaran berbasis gamifikasi, meskipun ada tantangan seperti keterbatasan akses teknologi dan kesiapan guru. Kesimpulannya, gamifikasi terbukti sebagai strategi yang efektif dalam meningkatkan minat belajar siswa dalam pendidikan Islam. Namun, agar implementasinya lebih optimal, diperlukan dukungan teknologi yang lebih baik, pelatihan bagi guru, serta desain gamifikasi yang lebih fleksibel agar sesuai dengan karakteristik siswa.

Kata Kunci: Gamifikasi, Minat Belajar, Pendidikan Islam, Metode Pembelajaran, Inovasi.

## Abstract

*Traditional teaching methods in Islamic education, such as lectures and rote memorization, have often been less effective in engaging students. In the digital era, innovative learning strategies have been required to create a more interactive and engaging educational experience. One approach that has recently been implemented is gamification, which integrates game elements into the learning process to enhance student engagement and motivation. This study aimed to analyze the effectiveness of gamification in increasing students' learning*

*interest within Islamic education. A mixed-method approach was employed, combining quantitative and qualitative methods. The quantitative approach was conducted through pretests and posttests, analyzed using the Paired Sample T-Test and N-Gain to examine changes in students' motivation scores. Meanwhile, the qualitative approach was carried out through interviews and observations to explore students' experiences and the challenges faced by teachers in implementing gamification. The findings indicated a significant increase in students' learning motivation after the implementation of gamification, with the average pretest score of 56.42 rising to 60.18 in the posttest. The N-Gain test revealed that the improvement was categorized as low to moderate. Qualitative analysis showed that students were more engaged and motivated in gamified learning, although challenges such as limited technological access and teacher preparedness were identified. In conclusion, gamification was proven to be an effective strategy for enhancing students' learning interest in Islamic education. However, for its implementation to be more optimal, better technological support, teacher training, and a more flexible gamification design tailored to students' characteristics were needed.*

*Keywords: Gamification, Learning Interest, Islamic Education, Learning Method, Innovation.*

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## INTRODUCTION

Islamic education has become an important part in shaping the character and religious values of the younger generation. The learning methods used so far tend to be conventional, such as lectures and memorization, which although effective in delivering material, are sometimes less able to attract students' interest.

In today's digital era, students are increasingly accustomed to interactive technology that makes them more interested and motivated in learning. Therefore, innovative approaches such as gamification are beginning to be introduced to answer this challenge, with the hope of improving the learning experience of students.

Recent research shows that gamification of game elements in the learning process—can increase student motivation and engagement. For example, a study at SMP Negeri 8 Palangka Raya found that gamification-based learning in Islamic Religious Education (PAI) helps students be more enthusiastic and active in the classroom (Yulianti, Muslimah and Abdullah, 2024).

Another study at MAN 2 Palembang also proved that the use of gamification-based learning media in the subject of Al-Qur'an and Hadith significantly increased students' interest in learning. These findings show that gamification is not just a trend, but can be an effective strategy in Islamic education (Nugroho, 2022).

Previously, various efforts have been made to increase students' interest in learning in Islamic education. Methods such as group discussions, the use of audiovisuals, and technology-based approaches have been implemented with varying results. However, there are still many challenges in ensuring that these methods are truly effective in increasing student engagement.

In recent years, gamification has begun to receive more serious attention. A study in MTs Negeri 1 Ciamis showed that the use of the Game-Based Learning (GBL) method

significantly increased students' interest in Islamic Cultural History by a percentage of up to 92.8%. These results indicate that the integration of game elements in Islamic education can have a positive impact (Amalia and Athiyyah, 2024).

Although many studies have shown the benefits of gamification, there are still unanswered questions. For example, how specific elements in gamification—such as point systems, challenges, or competitions—can directly affect student interest and motivation?

In addition, there have not been many studies that discuss the application of gamification in various cultural backgrounds and different levels of Islamic education. Understanding of the long-term impact of gamification is also limited, especially in relation to student learning outcomes over a longer period of time (Sari and Alfiyan, 2023).

Most research on gamification in Islamic education still focuses on application in one specific subject, not in the context of overall Islamic education management. In fact, there is great potential to apply gamification in curriculum planning, teaching methods, and learning evaluation.

In addition, factors such as age, socio-economic background, and students' level of prior knowledge have not been widely studied in relation to the effectiveness of gamification. Further research is needed to understand how these factors affect the success of gamification in Islamic learning (Arif *et al.*, no date).

This research offers a new perspective by integrating gamification not only in learning, but also in the management of Islamic education more broadly. By developing a systematic approach, it is hoped that gamification can be an integral part of teaching strategies at various levels of Islamic education.

In addition, this study will use a mixed-method approach that combines quantitative and qualitative data to gain a deeper understanding. The results are expected to not only provide theoretical insights but also practical guidance for educators in implementing gamification effectively (Hendrayadi, Kustati and Sepriyanti, 2023).

The findings of this study can be the basis for educators and managers of Islamic education in designing learning strategies that are more attractive and in accordance with the needs of current students. If gamification proves effective, then this approach could be a broader model in Islamic education.

In addition, this research can contribute to the development of training for teachers so that they are better prepared to implement gamification creatively and effectively. Thus, the results of this research can bring real changes in the Islamic education system that is more modern and interactive.

This study aims to identify the most effective elements of gamification in increasing students' interest and motivation in Islamic education. In addition, this study will also analyze how gamification affects student learning outcomes in various subjects. Furthermore, this study seeks to develop a model for the application of gamification in Islamic education management so that it can be applied widely and sustainably. As a practical step, this study will provide recommendations for teachers and education managers to adopt gamification as an innovative and effective learning strategy.

## RESEARCH METHODS

This study uses a mixed-method approach, which combines quantitative and qualitative research to obtain a more comprehensive understanding. A quantitative approach is used to measure the effectiveness of gamification in improving students' interest and learning outcomes through surveys and statistical data analysis. Meanwhile, a qualitative approach is carried out with in-depth interviews and observations to explore the experiences of students and educators in applying gamification in learning. The combination of these two

methods allows the study to not only measure the impact of gamification numerically, but also understand the factors that influence its success (Waruwu, 2023).

Sampling in this study was carried out purposively, involving students and teachers from several Islamic schools that have implemented or begun to adopt gamification in learning. Quantitative data was collected through questionnaires that measured students' learning interests, motivation, and academic outcomes before and after the implementation of gamification (Lenaini, 2021). Meanwhile, qualitative data were collected through interviews with teachers and students to gain deeper insights into the experiences and challenges in the application of gamification.

Once the data was collected, quantitative analysis was carried out using descriptive and inferential statistical techniques to see significant changes in students' interests and learning outcomes (Prihatiningsih, 2022). Qualitative analysis was carried out using the thematic analysis method to identify patterns and themes that emerged from interviews and observations (Nasri, 2023). The results of these two analyses are then compared and synthesized to provide a more complete picture of the effectiveness of gamification in Islamic education and provide recommendations for education managers in implementing this method optimally.

## RESULTS AND DISCUSSION

### Objectively Measuring the Impact of Gamification

The quantitative approach in this study aims to find out whether the application of gamification really provides a significant increase in students' interest and motivation in learning. Data was collected through pretest and posttest which measured changes in student motivation before and after the application of gamification. In addition, the Paired Sample T-Test is used to see statistical differences in scores, while the N-Gain test helps analyze the level of effectiveness of gamification in increasing student engagement in learning (Ibrahim and Rahmawati, 2023).

Using this approach, the study provides an objective picture of the influence of gamification elements—such as points, challenges, and rewards—on students' learning motivation. The results of statistical analysis will show whether gamification can be an effective learning strategy in the context of Islamic education.

To understand how gamification affects students' motivation to learn, this study collected data through pretest and posttest. The data was then statistically analyzed to see changes before and after the application of gamification. The following table presents the results of descriptive statistics that describe the distribution of minimum, maximum, mean, and standard deviations from students' learning motivation scores.

The results shown in this table provide a preliminary overview of the impact of gamification on student learning motivation. By comparing the scores before and after the implementation of gamification, we can see if this method actually provides a significant positive change in increasing students' interest and engagement in learning.

**Table 1.** Descriptive Statistics of Student Learning Motivation Questionnaire

Category	N	Minimum	Maximum	Mean (Rata-rata)	Std. Deviation
Pretest Learning Motivation	35	50	70	56,42	4,215
Posttest Learning Motivation	35	55	75	60,18	4,563

This table presents the results of the pretest and posttest of learning motivation from 35 students who took part in gamification-based learning. From the data obtained, it can be seen that there is an increase in the average learning motivation score after the gamification method is applied. Before gamification was used, the average motivation score of students was 56.42. After gamification-based learning was implemented, this score increased to 60.18. This increase shows that gamification has a positive impact on student motivation in learning, although in a not very large range.

In addition, changes are also seen in the minimum and maximum score ranges. In the pretest, the students' motivation score was in the range of 50 to 70, while after the gamification was applied, the range increased to 55 to 75. This shows that not only is the average score increasing, but there is also an improvement in the distribution of scores. In other words, students who previously had lower motivation to learn experienced a significant increase after participating in gamification-based learning.

In terms of variation in student responses, the standard deviation in the pretest was recorded at 4,215, while in the posttest it increased to 4,563. Although there was a slight improvement in standard deviation, which indicated a variation in student responses, it was still seen that the majority of students experienced an increase in motivation. This shows that gamification has a fairly wide effect in increasing student engagement in learning.

Overall, the data in this table illustrate that gamification contributes to increasing student learning motivation. Although the increase is not drastic, the changes that occur are consistent in various aspects, both in the average score and the distribution of grades. Thus, gamification can help create a more engaging learning atmosphere and encourage students to be more active in learning. However, to ensure that this increase is truly statistically significant, further analysis is needed using the Paired Sample T-Test. This test will help determine whether the difference between the pretest and posttest really reflects the impact of gamification or is just a random variation.

To ensure that the increase in students' learning motivation after the application of gamification is not just a coincidence, this study uses the Paired Sample T-Test. This test aims to find out whether there is a significant difference between motivation scores before and after gamification-based learning.

The following table presents the results of a statistical analysis comparing the mean value, number of samples (N), standard deviation, and level of significance (p-value). By looking at these results, we can understand whether the changes that occur really reflect the impact of gamification in increasing student learning motivation.

**Tabel 2.** Uji Hipotesis Paired Sample T-Test

Variable	Mean (Rata-rata)	N	Std. Deviation	Sig. (2-tailed)
Pretest Learning Motivation	56,42	35	4,215	0,000
Posttest Learning Motivation	60,18	35	4,563	

The table above presents the results of statistical analysis of pretest and posttest data on student learning motivation after the implementation of gamification. From the results obtained, it can be seen that there is an increase in the average motivation score of students after gamification-based learning is implemented. Before gamification was used, the average motivation score of students was recorded at 56.42, while after this method was applied, the average score increased to 60.18. This increase shows that gamification has a

positive impact on students' motivation to learn, helping them become more enthusiastic and engaged in the learning process.

In addition to looking at the average score, an analysis was also carried out against the standard deviation to understand how much variation in student responses. Before gamification was implemented, the standard deviation was at 4,215, which indicates that there is a difference in motivation levels among students. After gamification was applied, the standard deviation slightly increased to 4.563, which indicates that although students' learning motivation increased overall, there was variation in how students responded to this method. This shows that although gamification provides benefits, the resulting learning experience can vary depending on the characteristics of each student.

To ensure that this increase in motivation is not just a coincidence, the Paired Sample T-Test is conducted. The results showed a significance value of 0.000, which is much smaller than the limit of 0.05, indicating that the difference between the pretest and the posttest is very significant. In other words, the changes that occur are indeed caused by the implementation of gamification, not other factors that may affect student learning outcomes.

Overall, the results of this analysis prove that gamification can be an effective strategy in increasing students' learning motivation. By providing game elements such as points, challenges, and rewards, this method is able to make the learning process more engaging and interactive. Therefore, gamification is feasible to be applied more widely in the Islamic education system, especially in the context of education management oriented towards increasing learning interest. However, further research is still needed to better understand the factors that can improve the effectiveness of gamification, such as the types of games students prefer the most or how gamification designs can be better tailored to their needs and characteristics.

To understand how gamification affects different aspects of student motivation, the study measured improvements in three key indicators: desire to achieve goals and achieve, leadership and responsibility, and the ability to build social relationships. This data provides a more detailed picture of how gamification elements, such as points and challenge systems, can encourage students to be more active in learning and interacting. In addition, this study also used the N-Gain test to see the extent of the increase in student learning motivation after the implementation of gamification. This test helps determine whether the changes that occur fall into the high, medium, or low category. With the combination of these analyses, we can understand not only whether gamification increases motivation, but also how much of an impact it has on student engagement in learning.

**Table 3.** Percentage Increase in Motivation Based on Indicators

Motivation Indicators	Pretest Skor	Posttest Skor	Increased (%)
Desire to achieve goals and achieve	720	765	6%
The desire to lead and be responsible	640	675	5%
Desire to build good social relationships	680	735	8%

Based on the table above, it shows how the application of gamification has an impact on various aspects of student learning motivation. From the results of the analysis, it can be seen that each indicator has improved after gamification-based learning is implemented.

The desire to achieve goals and achieve has increased by 6%, from a pretest score of 720 to 765 on the posttest. This shows that students are more motivated to complete tasks and achieve better results after being given gamification-based challenges.

The desire to lead and be responsible increased by 5%, from 640 to 675. This shows that students who are involved in gamification tend to be more confident in taking initiative and more active in learning activities. Elements such as badges and reward systems seem to help improve student leadership roles in the classroom.

The desire to build good social relationships experienced the highest increase, at 8%, from 680 to 735. This increase shows that gamification not only affects individual motivation, but also on social interaction among students. The competitive and cooperative elements in gamification seem to help create a more dynamic and collaborative learning atmosphere.

Overall, this table shows that gamification has a positive effect on increasing students' learning motivation, especially in the aspects of academic engagement, leadership, and social interaction.

**Table 4.** Results of the N-Gain Test of Student Learning Motivation

Category	N	Minimum	Maksimum	Mean (Rata-rata)	Std. Deviasi
<b>N-Gain Learning Motivation</b>	35	0,10	0,50	0,27	0,089

**Table 5.** N-Gain Score Categories

N-Gain Value	Categories Improvement
$g > 0,7$	high
$0,3 \leq g \leq 0,7$	medium
$g < 0,3$	Low

In addition to looking at improvements based on specific indicators, this study also used the N-Gain test to determine the level of effectiveness of gamification in increasing overall learning motivation. From the results of the analysis, it was found that the average N-Gain value was 0.27, with a minimum value range of 0.10 and a maximum value of 0.50. Based on the categories set out in Table 5, this value is included in the low to medium category ( $0.3 \leq g \leq 0.7$  is categorized as moderate, while  $g < 0.3$  is categorized as low).

These results show that although gamification has a positive impact on students' learning motivation, the increase has not reached a high level. This shows that there are other factors that affect the effectiveness of gamification in learning. Some possible factors that can affect these outcomes are: Variation in student responses, Not all students respond to gamification in the same way. Some students are highly motivated by the challenge and reward system, while others may feel less driven by these elements. Uneven access to technology, Some students may have limitations in accessing the devices or internet connections needed to follow gamification optimally.

Teachers' and students' level of adaptation to gamification If teachers are not yet familiar with this method or if the gamification design is not fully integrated into the learning strategy, the impact may not be as strong as expected. Nonetheless, these results still show that gamification has the potential to increase students' motivation to learn, especially if the factors affecting its effectiveness can be improved. With improvements in gamification



design and further support for teachers and students, it is hoped that this method can have a greater and more equitable impact in the future.

### Understanding Experiences and Challenges in Gamification

In addition to looking at the results numerically, this study also explores the experiences of students and teachers in the application of gamification through interviews and observations. The goal is to understand how students respond to this method, what factors support its success, and the obstacles that may be encountered in applying it in the classroom (Nurhikmah *et al.*, 2023).

Through interviews, students revealed how gamification affects their enthusiasm for learning, how they adjust to the game-based system, as well as what aspects they like most or least like about this method. Meanwhile, teachers shared experiences in adopting gamification, including technical challenges, readiness to teach with new methods, and how they see changes in student engagement (Fatimah, Viono and Ambarwati, 2023).

This approach provides a deeper understanding of how gamification can be optimally applied in Islamic education. By understanding the direct perspectives of students and teachers, this research can provide practical recommendations for schools in developing more effective and enjoyable learning strategies (Srimuliyani, 2023).

### Student Response to Gamification

The majority of students gave a positive response to the application of gamification in learning. They revealed that this method makes the learning atmosphere more fun and not boring. Previously, many students felt bored with the conventional lecture method which was one-way. However, with game elements such as points, leaderboards, and challenges, they feel more motivated to follow the lessons with enthusiasm (Zahara, Prasetyo and Yanti, 2021). One of the students revealed that he felt more motivated to complete the assignment because he wanted to get the highest score among his peers. This shows that the element of competition in gamification can be a driver for students to be more active in learning. In addition, students also feel that the reward system in gamification makes them more confident and feels appreciated for their efforts in learning (Rahmania, Soraya and Hamdani, 2023).

#### Respons Siswa terhadap Gamifikasi

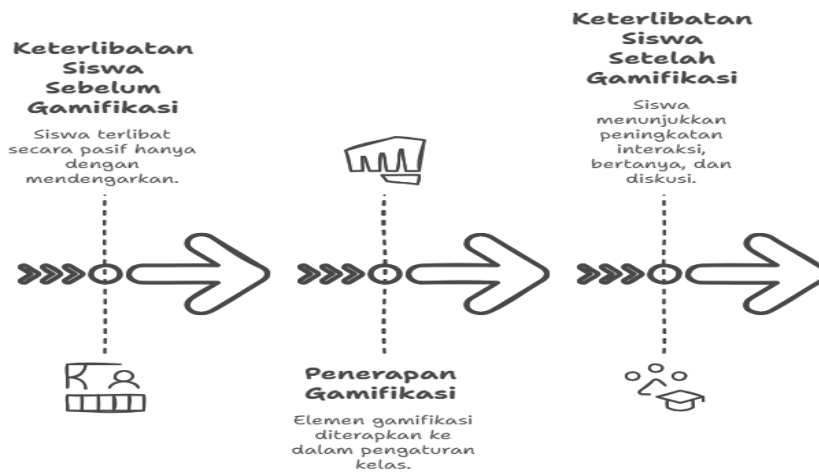


### Increased Student Engagement in Learning

Before the implementation of gamification, many students tended to be passive in the classroom, only listening to the teacher's explanation without giving much response. However, after gamification was implemented, there was a significant increase in student interaction. They ask questions more often, discuss with peers, and are faster in completing assigned tasks (Christanty and Cendana, 2021).



**Dampak Gamifikasi pada Keterlibatan Siswa**



In the observations made, it can be seen that students who previously participated less are now more active and motivated to be involved in learning. For example, when a teacher gives a quiz-based challenge using Kahoot, almost all students want to take part and compete for the highest score. This phenomenon shows that gamification can be an effective tool in increasing student engagement in the learning process (Karnia *et al.*, 2023).

**The Impact of Gamification on Learning Motivation**



Gamification not only increases student engagement but also affects their intrinsic motivation. Many students who previously only studied because of academic demands are now starting to enjoy the learning process itself. They feel that learning is no longer a burden, but a fun and challenging experience. Some students revealed that they were more disciplined in their assignments and more diligent in reading the material before class because they knew that there would be gamification-based challenges or quizzes to follow.

This shows that the element of play in learning can help build better study habits among students (Fadilla and Nurfadhilah, 2022).

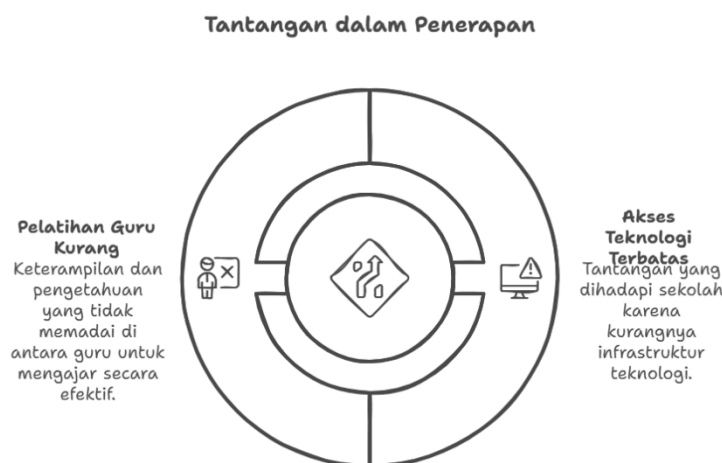
### Teachers' Perception of Gamification



Teachers involved in this study also gave positive responses to the application of gamification in learning. They stated that this method makes the class livelier and more dynamic. Previously, they often had difficulty maintaining students' attention, especially on material that was considered difficult or boring. However, after gamification was implemented, they saw a change in the attitude and enthusiasm of the students (Marisa et al., 2022).

One of the teachers stated that gamification helped him in conveying the material in a more interesting way. He also saw that students had an easier time remembering the concepts taught when they learned through a game-based method compared to the usual lecture method. However, some teachers feel that they still need more training in implementing gamification effectively so that the results can be more optimal (Mulyanti, Abidin and Suharto, 2023).

### Barriers to Gamification Implementation



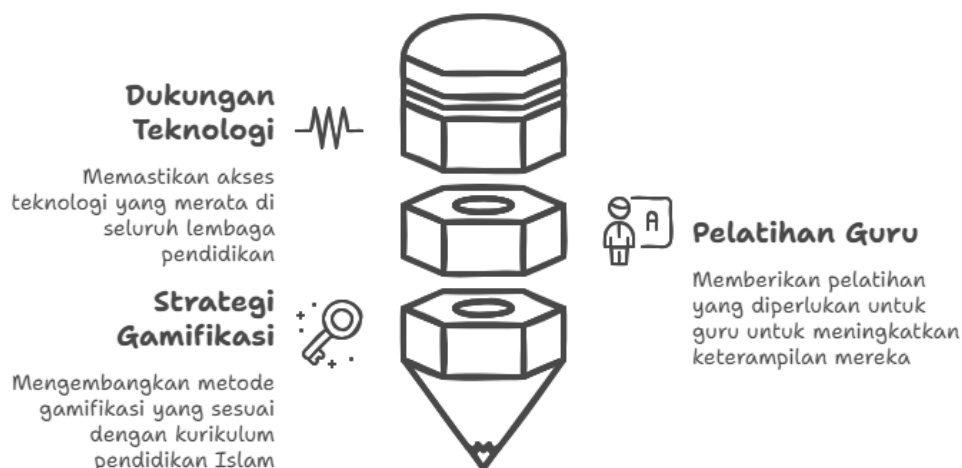
Although gamification brings many benefits, there are several obstacles to its implementation. One of the main obstacles is limited access to technology. Not all students have a supporting device, such as a smartphone or laptop, so some of them struggle to participate in digital-based gamification activities (Putri, Sudiyanto and Muchsini, 2023).

In addition, teachers' skills in using technology are also a challenge in itself. Not all teachers are familiar with gamification platforms like Kahoot, Quizizz, or Google Forms. Some of them take longer to understand how the platform works and how to integrate it into their learning plans. Therefore, special training is needed for teachers so that they are better prepared to apply this method to the maximum (Fakhri and Anandari, 2023).

### Recommendations for the Development of Gamification in Islamic Education

Based on the findings of this study, there are several recommendations that can be applied to increase the effectiveness of gamification in Islamic education (Pujihastuti, Waluyo and Murtiyasa, 2022):

### Strategi Pengembangan Pendidikan Komprehensif



Providing Equitable Access to Technology Schools may provide assistive devices such as computers or tablets for students who do not have access to technology. Another alternative is to implement non-digital-based gamification, such as game boards or quiz cards, so that all students can participate (Mawardi, 2023). Teacher Training in the Implementation of Gamification Teachers need to receive special training on how to develop gamification strategies that are in accordance with the Islamic education curriculum. Training should also include how to use various gamification platforms as well as evaluation techniques to measure the effectiveness of these methods in increasing students' interest in learning (Lutfiani *et al.*, 2023).

Adapting Gamification Design to Student Characteristics Gamification must be designed to suit the needs and characteristics of students in Islamic education. For example, the challenges or quizzes given can be adapted to Islamic values to be more relevant to their learning context (Zakaria *et al.*, 2023). Monitoring and Evaluating the Effectiveness of Gamification Periodically Schools and teachers need to conduct periodic evaluations to see if gamification is really effective in improving student motivation and learning outcomes.

This evaluation can be done through surveys, interviews, or analysis of students' academic data before and after the implementation of gamification (M VITHOR, 2023).

## CONCLUSION

This study aims to analyze the effectiveness of the implementation of gamification in Islamic education management to increase students' interest in learning. Using a mixed-method approach, this study evaluates the impact of gamification quantitatively through statistical analysis and qualitatively through interviews and observations. The results showed that gamification was able to increase student motivation and engagement in learning, as seen from the increase in the average learning motivation score and positive responses from students and teachers to this method.

Quantitatively, the results of the Paired Sample T-Test showed that there was a significant difference between students' learning motivation before and after the implementation of gamification, with an increase in the average score from 56.42 to 60.18. The N-Gain test also showed that this improvement was in the low to medium category, which means that while gamification has a positive impact, there are other factors that affect its effectiveness. Meanwhile, from the results of interviews and observations, it was found that students felt more interested in gamification-based learning because of the elements of challenges and rewards given, although there were still obstacles such as limited access to technology and teachers' readiness to apply this method.

Based on the results of this study, it can be concluded that gamification has great potential to be applied in Islamic education as an innovative strategy to increase students' interest in learning. However, in order for the results to be more optimal, further development is needed, such as improving teachers' skills in using gamification, providing more equitable access to technology, and designing gamification that is more flexible to suit the needs and characteristics of students. In addition, further research is recommended to explore the long-term impact of gamification in learning as well as its effect on students' academic outcomes in various subjects.

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