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The Influence of the Availability of Facilities and Infrastructure and the School Cultural System on Improving Student Academic Achievement at MA Unggulan Hikmatul Amanah, Mojokerto Regency

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Abstract:
This study aims to analyze the influence of the availability of facilities and infrastructure and the school cultural system, both individually and simultaneously, on the improvement of student learning achievement at MA Unggulan Hikmatul Amanah, Mojokerto Regency. The study employs a quantitative approach, involving 87 Grade XI students selected via simple random sampling as the sample. Data were collected through Likert-scale questionnaires, observation, and documentation. Data analysis was conducted using multiple linear regression following validity, reliability, and classical assumption tests. The results indicate that (1) the availability of facilities and infrastructure has a positive and significant effect on the improvement of learning achievement; (2) the school cultural system has a positive and significant effect on the improvement of learning achievement; and (3) the availability of facilities and infrastructure and the school cultural system jointly influence the improvement of student learning achievement at MA Unggulan Hikmatul Amanah. The calculated F-value (F-count) of 73.816 exceeds the F-table value (3.10), and the coefficient of determination is 62.9%, indicating the contribution of these two independent variables to the dependent variable (student learning achievement improvement), while the remaining 37.1% is influenced by factors outside the scope of this study.

Keywords: Facilities and Infrastructure, School Cultural System, Student Learning Achievement, Quantitative Approach

Introduction

Education is understood as a conscious and planned effort to develop an individual's various potentials, enabling them to face the diverse challenges of the future. Fundamentally, the primary goal of education is to cultivate culture and foster humanity within individuals (Sari, 2025). Education facilitates the acceleration of individual potential and helps shape the positive character of the nation's youth, as it is a vital component of societal life (Khoiruddin, 2023). It is also defined as a process of fostering intellectual maturity and shaping attitudes and skills through continuous instruction, training, and guidance (Rahmat & Hidayat, 2019). This aligns with Law No. 20 of 2003, which defines education as a conscious effort to create a conducive learning environment where learners actively develop their potential, encompassing spirituality, self-control, personality, intelligence, moral character, and skills, for their own benefit and that of society and the state (Kelembagaan Ristekdikti, 2016; Undang-Undang No. 20 Tahun 2003 Tentang Sistem Pendidikan Nasional, 2003).

Student learning achievement often serves as a benchmark for determining the extent of success students have attained in the educational process. This process involves various factors, both internal and external, that influence a learner's success in acquiring knowledge. In his theory, *The Conditions of Learning*, Robert Mills Gagne explains that learning within an educational institution arises from the interaction between a student's internal conditions and the external conditions present in the educational environment (Putri & others, 2020). Gagne emphasizes the importance of these external factors, such as the learning environment and teaching methods. Given the critical role of education, a managerial system is required to effectively manage an institution's resources, spanning inputs and processes, to achieve the desired outcomes(Masitoh et al., 2025). Consequently, realizing educational goals necessitates management functions ranging from planning to supervision; this process is carried out by optimizing human resources and other supporting elements known as the "6M" factors: Men, Money, Materials, Machines, Methods, and Market (Taufiq et al., 2025).

Based on this, key elements in education management include "materials" and "machines", represented by physical aspects such as the availability of facilities and infrastructure, as well as "methods," which are closely linked to work processes and the values embedded in the school's cultural system. Education is not merely the transfer of knowledge but an effort to build moral and intellectual foundations. Consequently, quality education must foster a positive environment with adequate facilities that serve as a stimulus for students to achieve optimal learning outcomes (Sagala, 2013).

Facilities and infrastructure are supporting components of the learning process. This aligns with Government Regulation No. 57 of 2021 concerning national education standards, which designates facilities and infrastructure as a crucial component of educational institutions (Undang-Undang No. 57 Tahun 2021 Tentang Standar Nasional Pendidikan, 2021). Achieving effective and efficient educational goals requires a management system for these assets that encompasses the procurement and utilization of all supporting components, as well as measures to ensure facilities remain in a ready-to-use state. Success in this area depends on the availability of classroom equipment, the completeness of supporting infrastructure, the suitability and physical condition of buildings, and the operational readiness of existing facilities (Barnawi & Arifin, 2014).

Adequate educational facilities and infrastructure, such as well-stocked libraries, laboratories, and access to information technology, are essential for supporting students' learning processes during instruction (Noerfauzi, 2023). Matin and Fuad state that facilities and infrastructure are vital components supporting school learning activities;

the quality of education relies heavily on the physical condition of these assets and the precision with which they are managed and utilized. They further explain that facilities capable of supporting the learning process require comprehensive procurement, covering books, equipment, and furniture (Matin & Fuad, 2016).

In this context, educational facilities are specifically categorized into two types: *sarana* (direct instructional resources) and *prasarana* (supporting infrastructure). *Sarana* refers to items directly involved in learning activities, such as desks, chairs, classrooms, and teaching aids. Meanwhile, *prasarana* serves as supporting infrastructure not directly involved in the learning process itself, such as school grounds, buildings, and gardens (Mulyasa, 2012). Consequently, educational institutions must ensure the availability of these school facilities. Such direct and indirect physical support facilitates learning activities, enabling them to proceed more effectively and efficiently. The presence of both components is crucial for supporting the effectiveness of the school's learning process. This aligns with the theory proposed by Nana Syaodih, who identifies these facilities as static and dynamic elements utilized to achieve educational goals in a structured and systematic manner (Sukmadinata, 2010).

Government Regulation No. 19 of 2005 concerning National Education Standards (Chapter VII, Article 42, paragraphs 1 and 2) stipulates that every educational unit must possess *sarana*, including furniture, educational equipment, teaching aids, books and other learning resources, consumables, and other supplies, necessary to support an orderly and sustainable learning process. Furthermore, every educational unit must possess *prasarana*, including land, classrooms, administrative offices, staff rooms, administrative support areas, libraries, laboratories, places of worship, playgrounds, and other spaces, necessary to support an orderly and sustainable learning process (Pemerintah Republik Indonesia, 2005). This demonstrates that these facilities aid the learning process both directly and indirectly. An optimal learning process is achieved when the necessary facilities are adequately provided and maintained in a ready-to-use state.

While the availability of supporting physical facilities is indeed vital, non-physical elements, such as school culture, are also essential to drive operational activities. This is because the factors determining the quality of education are not limited to physical elements, such as the completeness of laboratory equipment and library resources, but also encompass non-physical factors like school culture. School culture drives the various activities implemented by all school stakeholders, including the principal, educators, students, and parents. According to Deal and Peterson, school culture serves as a school's identity. It is shaped by values, norms, traditions, beliefs, and rituals established over time through collaboration, problem-solving, and facing challenges, as well as by a set of informal expectations and values that influence how people think, feel, and act within the school (Deal & Peterson, 2009).

School culture generally centers on the school's vision, mission, and goals, serving as a reference point for all members of the school community: teachers in their instruction, school leaders in their administration, and students in their learning (Rabi'ah & Siskayanti, 2023). Furthermore, school culture provides a setting for interaction among community members, interactions governed by the rules, norms, and moral standards applicable within the school. Key elements cultivated within this culture include leadership, role modeling, tolerance, hard work, discipline, social and environmental awareness, and responsibility (Siregar, 2024).

School culture establishes a distinctive identity or characteristic for the school in the eyes of the wider community. It can be defined as a unique personality manifested

through the attitudes, norms, mindset, and behavioral patterns of its members; consequently, the government, through educational institutions, has a duty to nurture these aspects to enhance understanding and strengthen the culture within the school environment.

School culture can positively influence the learning process, thereby driving the school's overall functioning. As Wijaya suggests, a school can be said to possess a positive culture when it embodies fundamental learning norms, such as camaraderie, the joy of an engaging learning process, transparent management, enforced rules, and a vision and mission effectively instilled in the minds of the entire school community. Such a positive culture fosters a conducive learning environment. Ultimately, a strong school culture is expected to facilitate the core objective of schooling, effective learning, and inspire students to develop the intrinsic motivation needed to achieve success.

School instruction is considered effective when all students accurately understand and master the material presented; effectiveness thus represents a level of success measured against predetermined goals, serving as a benchmark for the extent to which quality, quantity, and time targets have been met. An effective learning process contributes positively to improving students' academic achievement; Mulyono Abdurrahman explains that such achievement represents the capabilities a child has mastered after completing the learning process. Similarly, Nana Sudjana notes that achievement reflects the potential a student possesses following the learning experience. Academic achievement constitutes the tangible results demonstrated by a child through their efforts to complete learning tasks (Sudjana, 2021). It also serves as a measure of a learner's success in meeting the targets established for their learning activities.

Madrasah Aliyah Unggulan Hikmatul Amanah is a private Islamic senior high school operating under the auspices of the Amanatul Ummah Foundation and was established in 2009. Administratively, the school holds an 'A' accreditation and is supported by extensive infrastructure covering approximately 5,000 square meters; facilities include 12 classrooms, a language laboratory, a computer laboratory, a science laboratory, an assembly hall, a prayer room, and a theater. The school’s vision is to cultivate individuals who are excellent, well-rounded, and possess noble character. Its operational goal is to enhance educational facilities and infrastructure, in terms of both quantity and quality, to support an ideal curriculum.

Preliminary observations indicate that educational facilities play a fundamental role in supporting teaching and learning activities at the school. However, in reality, there are deficiencies in certain facilities and infrastructure; this hampers the effectiveness of instruction due to the limited learning media available to teachers. Consequently, some students lack interest in their studies, as the scarcity of media can make it difficult for them to grasp the material presented by the teacher, a lack of engagement that can ultimately lead to a decline in academic achievement. While the school is striving to effectively manage its existing facilities and infrastructure, covering the entire lifecycle from planning to disposal, it faces obstacles, particularly an insufficient budget, resulting in continued limitations regarding certain facilities.

Furthermore, this *madrasah* possesses a cultural system deeply rooted in religious values, reflected in habitual practices such as *istighosah* (communal supplication), congregational prayers, and Quranic recitation. This culture is reinforced by a code of conduct for both teachers and students that strictly regulates student discipline. These distinctive cultural characteristics have earned *Madrasah Aliyah Unggulan* Hikmatul Amanah a positive reputation. The culture inherent in an educational institution is often a primary consideration for parents when selecting a school for their children. The

positive values, norms, and habits embedded in this school's culture serve as a guide for students to distinguish between right and wrong, thereby fostering their personal development.

However, challenges remain; for instance, some students still fail to comply with regulations, and others do not submit assignments on time. The disparity between the adequacy of facilities and the internalization of a culture of discipline directly impacts student academic achievement. Available time is often not utilized optimally due to technical issues or a lack of student preparedness.

Given these conditions, the researcher is interested in gaining a deeper understanding of how the availability of facilities and the strength of the school's cultural system influence educational outcomes at MA Unggulan Hikmatul Amanah. Consequently, the researcher is conducting a study titled "The Influence of Facility Availability and the School Cultural System on Improving Student Academic Achievement at MA Unggulan Hikmatul Amanah, Mojokerto Regency".

Methods

This study employs a quantitative approach, characterized as a systematic and structured method with clear stages designed to explain an existing social phenomenon (Fuzi et al., 2022). This approach is utilized to test theories, verify facts, and analyze relationships between variables in order to present statistical data derived from the findings (Tanzeh, 2011).

The study population consists of 112 Grade XI students from MA Unggulan Hikmatul Amanah. Simple random sampling was used to ensure that every member of the population had an equal chance of being selected, resulting in a sample of 87 respondents. Additionally, the Slovin formula was applied to determine the sample size, aiming for a sample that is manageable yet representative of the entire population.

Data were collected via a questionnaire using a 1-5 Likert scale to measure students' perceptions regarding each variable. Direct field observation and documentation were also conducted. Prior to analysis, validity and reliability tests were performed on the instrument to ensure data quality. Data analysis utilized multiple linear regression techniques, comprising classical assumption tests, Pearson correlation analysis, hypothesis testing, multiple linear regression analysis, and the coefficient of determination test. All data processing was carried out using SPSS version 26 statistical software.

Results and Discussion

This study aims to analyze and determine the influence of the availability of facilities and infrastructure and the school's cultural system on the improvement of student learning achievement at MA Unggulan Hikmatul Amanah, both partially and simultaneously. Data were obtained by distributing questionnaires to 87 respondents, all of whom were active students at the school. Following data processing using multiple linear regression, the results indicate that both independent variables have a significant influence, both partially and simultaneously, on the dependent variable. The results of the t-test and F-test, conducted to assess the influence of the independent variables on the dependent variable, are presented in the following table:

Table 1 T-Test Result

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6,046	5,637	-	1,073	0,287
Ketersediaan sarpras	0,143	0,044	0,249	3,278	0,002
Budaya sekolah	0,721	0,085	0,644	8,474	0,000

Based on the partial hypothesis testing, the results indicate that the variable (X1), availability of facilities and infrastructure, has a t-calculated value of 3.278, which is greater than the t-table value (1.988), with a significance value of 0.002 (less than 0.05). Consequently, the results accept Ha and reject H0, meaning that the availability of facilities and infrastructure has a positive and significant effect on improving student learning achievement.

Furthermore, the variable (X2), school culture system, has a t-calculated value of 8.474, which is greater than the t-table value (1.988), with a significance value of 0.000 (less than 0.05). Thus, the results accept Ha and reject H0, meaning that the school culture system has a positive and significant effect on improving student learning achievement.

To determine the magnitude of the simultaneous influence of both independent variables, an F-test analysis was conducted, the results of which are presented in the following table:

Table 2 F-Test Result

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5637,356	2	2818,678	73,816	,000[b]
Residual	3207,540	84	38,185		
Total	8844,897	86			

Based on Table 2, the variables of facility and infrastructure availability (X1) and school cultural system (X2) yielded an F-calculated value of 73.816, which exceeds the F-table value (3.10), with a significance value of 0.000 (less than 0.05). This indicates that both independent variables simultaneously exert a positive and significant influence on the dependent variable, namely, the improvement of student learning achievement, meaning that Ha is accepted and H0 is rejected. Furthermore, to determine the extent of the contribution made by the variables of facility and infrastructure availability and the school cultural system to the improvement of student learning achievement, an analysis of the coefficient of determination was conducted as follows:

Table 3 Coefficient of Determination Test Results

Model Summary[b]			
R	R Square	Adjusted R Square	Std. Error of the Estimate
0,798[a]	0,637	0,629	6,179

Based on Table 3, the Adjusted R-Square value is 0.629. This indicates that 62.9% of the variation in student learning achievement can be explained by the availability of facilities and infrastructure and the school's cultural system. Meanwhile, the remaining 37.1% is explained by factors not examined in this study, such as internal factors, including interest, aptitude, motivation, intelligence, and skills, and other external factors like the family and community environments. The magnitude of this contribution highlights the importance of facilities, infrastructure, and the school's cultural system in fostering a conducive learning environment; this underscores that student achievement is an outcome of a school environment capable of addressing students' intellectual and emotional needs. Adequate facilities and infrastructure provide students with a sense of security and ease of access, while the school's cultural system cultivates self-discipline and strong motivation. Ultimately, the presence of these two components serves as a primary driver for students to achieve optimal academic results.

1. The influence of the availability of facilities and infrastructure on the improvement of student learning achievement at MA Unggulan Hikmatul Amanah, Mojokerto Regency.

   The analysis results indicate that the availability of facilities and infrastructure has a positive and significant impact on student learning achievement. At MA Unggulan Hikmatul Amanah, these facilities serve not merely as physical amenities but as supporting elements that ensure the teaching and learning process runs effectively and efficiently. The availability of facilities, such as classrooms, a library, laboratories, a place of worship, teaching aids, and learning media like digital TVs, can boost students' spirit and enthusiasm for learning. When facilities are well-provided, obstacles in the learning process can be minimized, thereby giving students the opportunity to delve deeper into the material being studied.

   These findings align with the views of Matin and Fuad, who explain that facilities and infrastructure are crucial components in the educational process, comprising both movable and immovable assets, that support learning activities to ensure they are carried out efficiently and effectively. Regulation of the Minister of Education, Culture, Research, and Technology Number 22 of 2023 regarding educational facility and infrastructure standards mandates that schools meet minimum criteria, including the provision of learning materials, tools, equipment, and spaces such as classrooms, laboratories, a library, a school health unit (UKS), a place of worship, a canteen, restrooms, and a playground to support an optimal learning process. In accordance with these standards, MA Unggulan Hikmatul Amanah possesses facilities that meet the minimum requirements established by the government. The available facilities include teaching aids (comprising 24 types of tools used during practical lessons), 70 computers, 16 whiteboards, 350 sets of student desks and chairs, 43 sets of teacher desks and chairs, and 10 storage cabinets of various sizes. The facilities comprise 12 classrooms, a principal's office, a teachers' office, a student council room, a library, a language laboratory, a science laboratory, two computer laboratories, a prayer room, an assembly hall, a canteen, a storage room, and restrooms.

   The availability of these facilities can foster greater enthusiasm and comfort among students during their studies. The findings of this study align with research conducted by Suci Nopida, Irma Suryani, and Ainun Mardiah, which demonstrates that facilities and infrastructure significantly influence the smooth conduct of the teaching and learning process; this indicates that such facilities are a crucial component of school-based education. The availability of these facilities and infrastructure represents the readiness of the tools required to create a comfortable and conducive learning environment (Nopida et al., 2025).

Empirically, the facilities at MA Unggulan Hikmatul Amanah not only assist teachers in delivering instructional material but also help students comprehend that material through the use of various learning media. Adequate facilities and infrastructure contribute positively to improved academic achievement, as students feel better supported in exploring their own potential. This suggests that when educational infrastructure is managed appropriately and in alignment with the needs of the teaching and learning process, it leads to optimal learning outcomes. Thus, facilities and infrastructure can be considered the essential physical foundation for the successful transfer of knowledge within the school.

2. The influence of the school culture system on improving student academic achievement at MA Unggulan Hikmatul Amanah, Mojokerto Regency

   The analysis results indicate that the school culture system exerts a positive and significant influence on the improvement of student academic achievement. These findings reinforce the idea that, alongside physical facilities, the non-physical environment, comprising collectively established values, norms, and traditions, plays a crucial role in shaping student learning outcomes. The school culture implemented at MA Unggulan Hikmatul Amanah includes religious routines such as the recitation of *Dalail an-Najah* and *Istighosah*, congregational *Dhuha* and *Dhuhr* prayers, and *Tadarus* (Quranic recitation); these routines serve to strengthen students' character. Furthermore, these practices aim to foster mental readiness and inner composure before classroom instruction begins, thereby enabling students to focus better on their lessons.

   The school culture at MA Unggulan Hikmatul Amanah possesses distinctive characteristics deeply rooted in integrated values of religiosity and discipline. In addition to religious routines, the school consistently instills the "5S" culture, *Salam* (greeting), *Senyum* (smiling), *Sapa* (addressing others), *Sopan* (politeness), and *Santun* (courtesy), as a foundation for daily behavior. Cultivating these habits represents a deliberate effort by the school to shape students' ethics and respectful attitudes toward both teachers and peers. The internalization of these values is concretely manifested through the morning assembly routine, which begins with the recitation of *Dalail an-Najah*. For this activity, all students are required to arrive punctually, bring their *Dalail an-Najah* books, and participate in an orderly manner. Students found violating regulations, such as by arriving late or failing to bring the *Dalail an-Najah* book, are subject to sanctions in accordance with school policy. Following the recitation of the *Dalil An-Najah*, the proceedings continued with the reading of the school's commitment and the institution's vision and mission. This activity is not merely a routine; it serves as a means for the school to instill a passion for learning and to align students' educational goals with the school's overarching aspirations. Efforts to reinforce discipline extended to inspections of the students' grooming and the completeness of their school uniforms, aimed at fostering adherence to established norms and regulations.

Instilling religious values and student discipline serves as a fundamental basis for creating a conducive learning environment; this approach shapes students not only to be responsible and disciplined individuals but also to possess strong spiritual character. Such a conducive school environment motivates students to engage enthusiastically in their studies and develop effective time-management skills. Consequently, this indicates that school culture positively impacts student learning outcomes, encompassing both cognitive achievements and non-academic character development.

Theoretically, these findings align with the work of Deal and Peterson, who define school culture as a collective manifestation of values, rituals, traditions, symbols, and practices; these elements not only shape the institution's identity but also serve as primary drivers of behavior among the school community. Integrating religious values into daily school routines fosters positive habits and mindsets, thereby cultivating a conducive school environment. At MA Unggulan Hikmatul Amanah, this school culture has evolved into a daily tradition that effectively guides students toward better behavior. This demonstrates that school culture can be understood as the embodiment of established values, norms, expectations, and habits that reflect the reciprocal relationships among all members of the school community, defining the very atmosphere of school life. Through structured disciplinary measures, school culture shapes students into orderly individuals and fosters positive new habits. When a school successfully creates an organized, safe, and comfortable learning atmosphere, it stimulates students' enthusiasm for optimal learning, ultimately leading to superior academic outcomes. These findings are supported by prior research conducted by Ahmad Zaki, Firman, and Nurfarhanah, which indicates that a systematically cultivated school culture can strengthen students' character through various daily habituation activities. This demonstrates that the consistent implementation of a positive school culture is highly effective in instilling strong character values in students. The consistent school culture at MA Unggulan Hikmatul Amanah directly influences the development of religious character and discipline among the students. Such positive character traits can have a direct impact on students' mental and psychological readiness for learning; students become far more focused during instruction and possess high learning motivation, which drives them to achieve outstanding academic success.

3. The simultaneous influence of the availability of facilities and infrastructure and the school culture system on the improvement of student learning achievement at MA Unggulan Hikmatul Amanah

The findings indicate that the success of the learning process is strongly supported by both physical and non-physical aspects. Adequate facilities and infrastructure serve as media to facilitate knowledge transfer, while school culture plays a role in building positive student character, thereby boosting learning enthusiasm and leading to better student learning outcomes.

These research findings align with the theory proposed by Robert Mills Gagne, which posits that learning achievement is influenced by two factors: internal and external. Internal factors encompass elements such as motivation, interest, and learning readiness. Meanwhile, external factors relate to the delivery of material and the environment; consequently, instructional design must consider aspects such as teaching methods, learning media, and the classroom atmosphere.

This theory indicates that learning achievement cannot be attained through a single component alone, as it results from complex interactions. In the context of a successful learning process, the availability of facilities and infrastructure acts as a tangible external factor supporting the conduct of learning activities. Conversely, school culture fosters positive character, mental readiness, and intrinsic student motivation. Therefore, combining the availability of facilities and infrastructure (a physical aspect) with the school culture system (a non-physical aspect) can create an ideal educational ecosystem, with both elements influencing the improvement of learning achievement. Furthermore, Nana Sudjana states that learning facilities, whether movable or immovable, are crucial instruments in the teaching-learning

process, ensuring that educational goals are achieved smoothly, systematically, effectively, and efficiently.

In his theory, Mulyasa categorizes educational facilities into two types: *sarana* (tangible assets used directly in instruction, such as equipment) and *prasarana* (supporting infrastructure). The availability of these learning facilities not only enhances a teacher's effectiveness in explaining and imparting knowledge but also optimizes students' ability to grasp and absorb the material being taught. However, the effective utilization of these facilities relies on a positive attitude and a sense of responsibility among all members of the school community, qualities reflected in the school's culture.

This concept aligns with the theory proposed by Deal and Peterson, who state that school culture serves as an identity capable of shaping behavioral habits and collective mindsets. Furthermore, according to Zamroni, school culture represents an accumulation of values, principles, and traditions passed down over a long period. These elements are consistently cultivated into a guiding framework embraced by the entire school community, thereby shaping the behavior and attitudes of its members.

This illustrates that the interplay between physical aspects (materials and machines) and non-physical aspects (methods) can generate powerful synergy. Infrastructure alone cannot function optimally without the support of a positive school culture. Conversely, high learning enthusiasm, if unsupported by adequate facilities, can hinder students' potential to explore knowledge more broadly.

The findings of this study are reinforced by earlier research conducted by Moh Abdul Aziz and Ridho Riyanto, which demonstrated that physical facilities, such as classrooms with comfortable atmospheres and sufficient lighting, can improve student concentration (Aziz & Riyanto, 2025). Additionally, a conducive and positive environment fosters student interest and motivation to engage actively in academic activities, ultimately leading to improved academic achievement. This study highlights the importance of both physical facilities and a strong school culture in facilitating optimal learning outcomes.

Furthermore, research conducted by Sukianto, Sulan, and Ida Ayu Gde indicates that school culture plays a strategic role in creating a conducive learning environment. School culture not only fosters orderliness but also supports students' emotional and social development, thereby enhancing academic achievement (Sukianto et al., 2025). Similarly, a study by Annisa Tusadya and Ike Syiva confirms that school culture significantly influences learning outcomes. These findings also support Robert M. Gagné’s theory regarding the "conditions of learning," which posits that academic success does not occur in isolation but relies heavily on the academic culture and discipline implemented within the school environment. Such findings reinforce the argument that cultivating a positive environment automatically drives improvements in student learning outcomes.

Overall, the results of this study demonstrate that the success of an educational system is not determined by a single factor; rather, it is the product of synergy among various aspects of the school environment. The availability of infrastructure and facilities serves not merely as an accessory but as a vital instrument that facilitates the teaching and learning process for the school community, particularly the students. Moreover, school culture acts as a shaper of character and positive values; when effectively implemented, it transcends formal rules to become deeply ingrained habits that shape students' mindsets in their pursuit of academic excellence.

As a practical implication, MA Unggulan Hikmatul Amanah should continue to maintain and upgrade its infrastructure and facilities in line with advancements in educational technology. Additionally, the reinforcement of school cultural values must be consistently prioritized to sustain student motivation and enthusiasm. Investing in physical infrastructure while simultaneously nurturing a positive school culture represents a sound strategy for fostering outstanding and competitive students.

Conclusion

Based on the presentation of the analysis results and the preceding discussion regarding how facilities and the school cultural system influence student academic achievement at MA Unggulan Hikmatul Amanah, the following conclusions can be drawn:

1. A positive and significant influence of the facility availability variable (X1) on the improvement of student academic achievement is evidenced by a calculated t-value of 3.278. This value exceeds the t-table value, with a significance level of 0.002 (< 0.05), meaning the alternative hypothesis (Ha) is accepted and the null hypothesis (H0) is rejected. Theoretically, this indicates that the completeness of supporting facilities optimizes the learning process; the more comprehensive the available school facilities, the easier it is for students to improve their academic outcomes.
2. Partial testing (t-test) for the school cultural system variable (X2) yielded a calculated t-value of 8.474, which exceeds the t-table value and is supported by a significance level of 0.000 (< 0.05). This statistical result leads to the acceptance of Ha and the rejection of H0, demonstrating that the school cultural system exerts a positive and significant influence on the improvement of student academic achievement.
3. Simultaneous testing (F-test) revealed that the availability of facilities and the school cultural system collectively (simultaneously) influence the improvement of student academic achievement at MA Unggulan Hikmatul Amanah, with a calculated F-value of 73.816, a value exceeding the F-table value, and a significance level of 0.000 (< 0.05). Consistent with this, the coefficient of determination (Adjusted R-Square) was found to be 0.629 (or 62.9%), indicating that the variation in the improvement of student learning achievement can be influenced by these two independent variables. Meanwhile, the remaining 37.1% is influenced by other factors, such as internal factors, comprising motivation, aptitude, interest, intelligence, and skills, and external factors, such as the family or community environment. Thus, it can be concluded that the interplay between physical aspects (availability of facilities and infrastructure) and non-physical aspects (school cultural system) can effectively enhance student learning outcomes at MA Unggulan Hikmatul Amanah.

References

Aziz, M. A., & Riyanto, R. (2025). Pengaruh Lingkungan Sekolah Terhadap Prestasi Belajar Siswa. *Al-Athfal STAI Muhammadiyah Probolinggo*, *6*(2). https://doi.org/10.46773/alathfal.v6i2.2075

Barnawi, & Arifin, M. (2014). *Manajemen Sarana dan Prasarana Sekolah*. Ar- Ruzz Media.

Darminatun, Dariyanto, & Suryatri. (2013). *Implementasi Pendidikan Karakter Di Sekolah*. Gava Media.

Deal, T. E., & Peterson, K. D. (2009). *Shaping School Culture: Pitfalls, Paradoxes, and Promises*. Jossey-Bass.

Fuzi, A., Nisa, B., Zonyfar, C., Nuraini, R., Purnia, D. S., Setyawati, I., Evi, T., Dian, S., Permana, H., & Sumartiningsih, M. S. (2022). *Metodologi Penelitian*. CV Pena Persada.

Kelembagaan Ristekdikti. (2016). *Peraturan Menteri Pendidikan Dan Kebudayaan Republik Indonesia Nomor 59 Tahun 2012 Tentang Badan Akreditasi Nasional Pasal 1 No 4*. Kelembagaan Ristekdikti.

Khoiruddin, U. (2023). Implementasi Pembelajaran Tatap Muka Terbatas Pada Mata Pelajaran Fikih. *Indonesian Journal of Humanities and Social Sciences*, *4*(1), 1–16.

Masitoh, I., Wahyudin, A., Imron, T., & Umami, R. (2025). Kontribusi Teori Kognitif Robert M. Gagne Dalam Pembelajaran Fiqih Pada Siswa MTs Al-Fathaniyah Serang. *Desanta: Indonesian Of Interdisciplinary Journal*, *5*(2).

Matin, & Fuad, N. (2016). *Manajemen Sarana Dan Prasarana Pendidikan*. PT. Rajagrafindo.

Mulyasa. (2012). *Manajemen Berbasis Sekolah*. Remaja Rosdakarya.

Noerfauzi, D. S. (2023). Implementasi Manajemen Pembiayaan Pendidikan Dalam Pemeliharaan Sarana Dan Prasarana Pembelajaran Di MAS Al-Furqon Cimerak. *SENTRI: Jurnal Riset Ilmiah*, *2*(12). https://doi.org/10.55681/sentri.v2i12.1942

Nopida, S., Siregar, I. S., & Siregar, A. M. (2025). Pengaruh Sarana Prasarana Terhadap Kelancaran Proses Belajar Mengajar Di MA Darul Ikhlas. *Hikmah: Jurnal Studi Pendidikan Agama Islam*, *2*(1). https://doi.org/10.61132/hikmah.v2i1.581

Pemerintah Republik Indonesia. (2005). *Peraturan Pemerintah Nomor 19 Tahun 2005 tentang Standar Nasional Pendidikan*.

Putri, R. A., & others. (2020). *Pemikiran Robert M. Gagne*. CV. Aduna Abimata.

Rabi'ah, & Siskayanti. (2023). Budaya Sekolah Lembaga Pendidikan Islam (Studi Pada MAN 1 HSU Dan SMAI IUNSBANJANG Di Kabupaten Hulu Sungai Utara). *Al-Furqan: Jurnal Agama, Sosial, Dan Budaya*, *2*(6).

Rahmat, & Hidayat, A. (2019). *Ilmu Pendidikan "Konsep Teori Dan Aplikasinya"* (C. Wijaya (Ed.)). Lembaga Peduli Pengembangan Pendidikan Indonesia (LPPPI).

Sagala, S. (2013). *Manajemen Strategik Dalam Peningkatan Mutu Pendidikan*. Alfabeta.

Sari, N. (2025). *Dasar-Dasar Pendidikan*. PT Sada Kurnia Pustaka.

Siregar, M. F. S. & A. Z. (2024). Peran Budaya Sekolah Dalam Meningkatkan Mutu Pendidikan dan Menciptakan Lingkungan Belajar Yang Kondif. *Jurnal Sosial Politik Dan Hukum*, *1*(2), 46–50.

Sudjana, N. (2021). *Penilaian Hasil Belajar*. PT Remaja Rosdakarya.

Sukianto, Sulan, & Gde, I. A. (2025). Pengaruh Budaya Sekolah Dan Disiplin Diri Terhadap Prestasi Belajar Siswa Pada Pembelajaran Agama Buddha Di SMKS Kasih Maitreya Kabupaten Kepulauan Meranti. *Syntax Literate: Jurnal Ilmiah Indonesia*, *10*(10). https://doi.org/10.36418/syntax-literate.v10i10.61756

Sukmadinata, N. S. (2010). *Metode Penelitian Pendidikan*. Remaja Rosdakarya.

Tanzeh, A. (2011). *Pengantar Metode Penelitian*. Teras.

Taufiq, M., Permana, R., & Falah, M. (2025). Pemberdayaan Pemuda Dalam Ekonomi Sirkular Melalui Integrated Farming System Berbasis Olahan Sampah Organik Dan Maggot Untuk Peningkatan Gizi Pakan Ternak. *Jurnal Pengabdian Kepada Masyarakat*, *6*(1). https://doi.org/10.31949/jb.v6i1.11653

Undang-Undang No. 20 Tahun 2003 Tentang Sistem Pendidikan Nasional (2003).

Undang-Undang No. 57 Tahun 2021 Tentang Standar Nasional Pendidikan. (2021).