

THE INFLUENCE OF CURRICULUM MANAGEMENT AND STUDENT ACHIEVEMENT IN ENHANCING QUALITY EDUCATION IN THE ERA OF DIGITAL TRANSFORMATION

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Abstract

The digital transformation in education demands a strategic synergy between curriculum management and the enhancement of student achievement to ensure sustainable education quality. This study aims to analyze the synergy between curriculum management and student achievement in promoting quality education in the digital transformation era, using MI Nurul Falah Ciater as a case study. The research employed an associative quantitative approach. The subjects of the study were teachers, while the objects included curriculum management, student achievement, and education quality. The population consisted of 56 teachers, with a sample of 31 teachers selected through random sampling. The data collection technique was carried out through the distribution of questionnaires using a Likert scale. The data analysis utilized descriptive statistics and multiple linear regression, with instrument quality tested through validity and reliability tests, and classical assumption tests including normality, multicollinearity, and heteroscedasticity tests. The results of the study indicate that: (1) partially, there is a significant effect of curriculum management on the quality of education, as evidenced by a t-value of $2.742 > 2.048$ and a significance value of $0.011 < 0.05$; (2) partially, there is a significant effect of learning achievement on the quality of education, as evidenced by a t-value of $3.550 > 2.048$ and a significance value of $0.001 < 0.05$; and (3) simultaneously, there is a significant effect of curriculum management and student achievement on the quality of education, as evidenced by an F-value of $33.521 > 3.34$ and a significance value of $0.001 < 0.05$. Based on these findings, it is recommended that primary education institutions such as MI Nurul Falah Ciater strengthen the coordination and implementation of adaptive curricula and develop integrated strategies to enhance student achievement through the utilization of digital technology.

Keywords: Curriculum Management, Education Quality, Student Achievement, Digital Transformation.

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Muhamad Akpan Pauzi¹, Emaliana Gustiani², Zaera Khuswatun Khasanah³, Nisak Ruwah Ibnatur Husnul⁴

Abstrak

Transformasi digital dalam dunia pendidikan menuntut adanya sinergi strategis antara manajemen kurikulum dan peningkatan prestasi siswa untuk menjamin mutu pendidikan yang berkelanjutan. Penelitian ini bertujuan untuk menganalisis sinergi antara manajemen kurikulum dan prestasi siswa dalam mendorong mutu pendidikan yang berkualitas di era transformasi digital, dengan studi kasus di MI Nurul Falah Ciater. Jenis penelitian yang digunakan adalah pendekatan kuantitatif asosiatif. Subjek penelitian ini adalah para guru, sedangkan objek penelitian mencakup manajemen kurikulum, prestasi siswa, dan mutu pendidikan. Populasi berjumlah 56 guru dengan sampel sebanyak 31 guru yang dipilih secara random sampling. Teknik pengumpulan data dilakukan melalui penyebaran kuesioner dengan skala likert. Data dianalisis menggunakan analisis statistik deskriptif dan regresi linear berganda, dengan uji kualitas instrumen melalui uji validitas dan uji reliabilitas serta uji asumsi klasik yaitu uji normalitas, multikolinieritas dan heteroskedastisitas. Hasil penelitian menunjukkan bahwa 1) secara parsial terdapat pengaruh signifikan antara manajemen kurikulum terhadap mutu pendidikan dengan nilai $t_{hitung} 2,742 > 2,048$ dan nilai $sig 0,011 < 0,05$, 2) secara parsial terdapat pengaruh signifikan antara prestasi belajar terhadap mutu pendidikan dengan nilai $t_{hitung} 3,550 > 2,048$ dan nilai $sig 0,001 < 0,05$, dan 3) secara simultan terdapat pengaruh signifikan antara manajemen kurikulum dan prestasi siswa terhadap mutu pendidikan dengan nilai F_{hitung} sebesar $33,521 > F_{tabel} 3,34$ dan nilai signifikan $0,001 < 0,05$. Berdasarkan temuan ini, direkomendasikan agar lembaga pendidikan dasar seperti MI Nurul Falah Ciater memperkuat koordinasi dan implementasi kurikulum yang adaptif serta strategi peningkatan prestasi siswa yang terintegrasi dengan pemanfaatan teknologi digital.

A. Introduction

Education plays a vital role in developing high-quality and competitive human resources in the era of globalization. At the national level, education serves as a strategic means of improving the quality of life through the advancement of knowledge, skills, and character (Zubaidah, 2016). Therefore, improving the quality of education has become a primary concern for all educational institutions, including at the basic education level such as *madrasah ibtidaiyah* (Islamic elementary schools). According to (Mulyasa, 2013), educational quality is not only measured by the final outcomes such as student grades, but also by the entire process involving teachers, students, curriculum, infrastructure, and the overall management of education. Educational quality reflects the synergy among all components of the education system in producing competent and character-driven graduates (Rosyada, 2020)(Sulaiman, 2016). Thus, improving the quality of education must be carried out comprehensively and continuously.

Educational quality is a key indicator of the success of an educational institution in fulfilling its functions. Quality education is not limited to student academic achievement; it also depends on the synergy between various components of the education system, including curriculum, teaching and learning processes,

THE INFLUENCE OF CURRICULUM MANAGEMENT AND STUDENT ACHIEVEMENT IN ENHANCING QUALITY EDUCATION IN THE ERA OF DIGITAL TRANSFORMATION

Muhamad Akpan Pauzi¹, Emaliana Gustiani², Zaera Khuswatun Khasanah³, Nisak Ruwah Ibnatur Husnul⁴

teacher competencies, and school management. However, in practice, the quality of education at the elementary level—particularly in madrasah—is still facing various challenges (Widoyoko, 2014)(Setiawan & Widodo, 2021). In today's era of digital transformation, these challenges have become more complex, requiring the educational system to adapt to technological developments, 21st-century learner needs, and evolving curriculum policies (Priatmoko, 2018).

Preliminary observations at MI Nurul Falah Ciater revealed several issues indicating that the quality of education has not yet reached its optimal level. There is a mismatch between the planned curriculum and its actual implementation in the classroom (Siraj-Blatchford et al., 2016). Teachers have not fully utilized instructional tools in creative and innovative ways, and not all have integrated technology into the design of active and meaningful learning experiences (Rahmatullah et al., 2020)(Jannah & Yuliana, 2019). This situation has led to limited variation in teaching methods, low student engagement in learning processes, and insufficient adaptation to individual student needs (Raharjo, 2020).

Another prominent issue is the performance gap among students. While some students demonstrate high academic achievement, others struggle to grasp the material, particularly in Mathematics and Arabic subjects (Handayani, 2021)(Karim, 2018). This disparity reflects suboptimal teaching strategies and a lack of effective monitoring of student learning outcomes (Hidayati & Sumarsono, 2017)(Hattie, 2015)(Anderson & Krathwohl, 2021). Such phenomena indicate that components within the madrasah education system are not yet functioning synergistically, which directly affects both learning outcomes and the overall quality of education.

In the context of Islamic basic education, curriculum management holds a strategic position in determining the direction and quality of educational delivery. (Mulyasa, 2014) asserts that effective curriculum management involves integrated and continuous processes of planning, implementation, and evaluation (Fullan & Quinn, 2016). When curriculum management is not functioning optimally, learning processes become unfocused, and student achievement tends to stagnate or decline (Fitria, 2020)(Hargreaves & Fullan, 2012). Therefore, strengthening curriculum management is crucial for improving the quality of madrasah education, especially in response to the challenges of the digital era.

Meanwhile, student academic achievement is also a crucial variable that contributes significantly to the quality of education. Academic achievement not only reflects students' cognitive understanding but also indicates the effectiveness of the instructional system implemented. (Slameto, 2010) emphasized that learning achievement is influenced by various factors, including teacher competence, learning media, evaluation strategies, as well as students' readiness and motivation. Therefore, efforts to improve the quality of education at MI Nurul Falah Ciater cannot be

separated from attention to equitable and inclusive enhancement of students' academic performance.

Previous studies have confirmed a significant relationship between curriculum management, academic achievement, and educational quality. (Hidayati & Sumarsono, 2017) revealed that well-structured curriculum planning and consistent implementation significantly improve student learning outcomes. Similarly, (Rahmatullah et al., 2020) concluded that effective and evaluation-based curriculum management enhances educational quality through improvements in instructional quality and student performance.

In the era of digital transformation, madrasah education must be able to adapt swiftly to technological dynamics and global demands. According to (Setiawan & Widodo, 2021), the integration of technology into curriculum management and classroom instruction offers a strategic solution for enhancing education quality. However, this process requires the preparedness of human resources, particularly teachers. Thus, it is essential to further investigate how the current conditions of curriculum management and student achievement in madrasahs influence overall educational quality (Arifin, 2018)(Bloom, 1956)(Yunus, 2019).

Based on the above issues, the formulation of the research problems in this study is as follows:

- 1) Does curriculum management affect the quality of education at MI Nurul Falah Ciater?
- 2) Does student academic achievement affect the quality of education at MI Nurul Falah Ciater?
- 3) Do curriculum management and student academic achievement simultaneously affect the quality of education at MI Nurul Falah Ciater?

This study is expected to provide both theoretical and practical contributions. Theoretically, the findings may enrich scholarly discourse in the field of educational management, particularly concerning the relationship between curriculum management, student achievement, and the quality of education at the madrasah level. The findings may also serve as a valuable academic reference for developing curriculum management models that are adaptive to changing times and responsive to student needs (Ornstein & Hunkins, 2017)(Trilling & Fadel, 2016). Practically, the results can be utilized by school leaders, teachers, and policymakers as a basis for formulating strategies to improve education quality through better curriculum management and outcome-oriented learning approaches. Consequently, MI Nurul Falah Ciater—and other madrasahs across Indonesia—can be better prepared to face educational challenges in the digital transformation era in a systematic and sustainable manner.

B. Method

Type of Research

This study employed a quantitative approach with an associative research design, aiming to examine the influence of curriculum management and student achievement on the quality of education at MI Nurul Falah Ciater. According to Sugiyono (2019:19), associative research is conducted to determine the relationship or influence between two or more variables based on the testing of pre-formulated hypotheses.

Time and Location of Research

The research was conducted from May to June 2025 at MI Nurul Falah Ciater, Serpong District, South Tangerang City, Banten Province.

Sources and Subjects of Research

The source of data in this study is primary data. Primary data were obtained directly from respondents through the distribution of questionnaires. According to Sugiyono (2019), primary data are data obtained directly from the first source through measurement, observation, interviews, or the distribution of questionnaires conducted by the researcher to respondents or research objects. The research subjects comprised all teachers and the principal of MI Nurul Falah Ciater, while the research objects included curriculum management (X_1), student achievement (X_2), and education quality (Y).

Population and Sample

The research population consisted of all teachers and the principal of MI Nurul Falah Ciater, totaling 56 individuals. The sample comprised 31 respondents selected using the random sampling technique to provide equal opportunity for each member of the population to be included in the sample.

Data Collection Technique

Data were collected using a questionnaire with a Likert scale, which contained statements related to the research variables.

Data Analysis Technique

To test the research instrument, data quality tests were conducted, including validity and reliability tests, followed by the classical assumption tests, namely:

1. Normality Test
2. Heteroscedasticity Test
3. Multicollinearity Test

Subsequently, multiple regression analysis was carried out, including the following tests:

1. Regression Equation
2. Coefficient of Determination
3. t-test
4. F-test

C. Results and Discussion

1. Research Results

This study aims to determine the influence of curriculum management and student achievement on the quality of education at MI Nurul Falah Ciater. Based on data obtained from questionnaires distributed to 31 teacher respondents, it was found that all three main variables—curriculum management, student achievement, and educational quality—demonstrated positive tendencies. The analysis was conducted to examine the general overview (descriptive statistics) of each variable and their partial and simultaneous effects on educational quality.

Descriptive Statistics

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Manajemen Kurikulum	31	38	70	60,10	7,166
Prestasi Siswa	31	47	70	59,26	7,052
Mutu Pendidikan	31	30	50	42,42	5,284
Valid N (listwise)	31				

The results of the descriptive analysis show that the curriculum management variable has a mean score of 60.10 with a standard deviation of 7.166, indicating that most teachers perceive the curriculum management at the madrasah to be fairly good, although there are variations in perception among respondents. Student achievement has a mean score of 59.26 with a standard deviation of 7.052, suggesting that students' academic performance is relatively high but not yet evenly distributed. Meanwhile, the educational quality variable has a mean score of 42.42 with a standard deviation of 5.284, reflecting the perception that the quality of education falls within the "fairly good" category, although there is still room for comprehensive and consistent improvement. These three data points provide an initial overview that curriculum management and student achievement can play a crucial role in determining the quality of education at the madrasah.

Validity and Reliability Tests

Before the instrument was used for data collection, validity and reliability tests were conducted to ensure the quality of the measurement tool. The validity test was carried out by correlating each questionnaire item with the total score using the Pearson Product-Moment correlation formula. The results showed that all items in the variables of curriculum management, student achievement, and educational

quality had correlation coefficients greater than the critical value ($r\text{-count} > r\text{-table}$), with significance values less than 0.05, indicating that all items were valid.

Subsequently, the reliability test was conducted using Cronbach's Alpha. The alpha values for all variables exceeded 0.70, which indicates that the instrument possesses a high level of internal consistency and is appropriate for use in this study. These strong validity and reliability scores form a solid foundation to ensure the accuracy and trustworthiness of the data obtained from the respondents.

Classical Assumption Tests

Prior to performing multiple linear regression analysis, classical assumption tests were conducted to ensure that the data met the requirements for parametric analysis. The normality test, using the Kolmogorov-Smirnov method, yielded a significance value of 0.124, which is greater than 0.05. Therefore, it can be concluded that the data are normally distributed.

The results of the multicollinearity test showed that the Variance Inflation Factor (VIF) values were 1.982 and Tolerance values were 0.505. Since all VIF values were below 10 and Tolerance values were above 0.1, this indicates that no multicollinearity occurred among the independent variables. Additionally, the heteroscedasticity test produced significance values greater than 0.05, indicating the absence of heteroscedasticity symptoms.

Regression Equation

Table 2. Regression Equation and t Test

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	2,112	4,958		,673
	manajemen kurikulum	,292	,106	,396	,011
	prestasi siswa	,384	,108	,513	,001

a. Dependent Variable: mutu pendidikan

Multiple linear regression analysis is a statistical method used to examine the linear relationship between two or more independent variables (X) and a dependent variable (Y). Based on the SPSS output from Table 2 above, the resulting regression equation is as follows:

$$Y = 2.112 + 0.292 X_1 + 0.384 X_2 + e$$

The interpretation of this equation is as follows:

1. The constant (2.112) indicates that if there is no contribution from curriculum management and student achievement (i.e., X_1 and X_2 are equal to zero), the predicted value of educational quality would be 2.112 (on the scale used in the study).

THE INFLUENCE OF CURRICULUM MANAGEMENT AND STUDENT ACHIEVEMENT IN ENHANCING QUALITY EDUCATION IN THE ERA OF DIGITAL TRANSFORMATION

Muhamad Akpan Pauzi¹, Emaliana Gustiani², Zaera Khuswatun Khasanah³, Nisak Ruwah Ibnatur Husnul⁴

2. The coefficient for X_1 (0.292) shows that for every 1-unit increase in curriculum management, the educational quality increases by 0.292 units, assuming student achievement (X_2) remains constant. This indicates a positive effect of curriculum management on educational quality.
3. The coefficient for X_2 (0.384) indicates that for every 1-unit increase in student achievement, educational quality increases by 0.384 units, assuming curriculum management (X_1) remains constant. This suggests that student achievement also contributes positively to educational quality.
4. Conclusion: Both curriculum management and student achievement have a positive influence on educational quality. However, student achievement exerts a greater influence compared to curriculum management.

t-Test

Based on the output results in Table 2 above, for the first hypothesis, namely the effect of the curriculum management variable on educational quality, the t-count value is $2.742 > 2.048$, with a significance value of $0.011 < 0.05$. Therefore, H_0 is rejected and H_a is accepted, meaning that there is a significant partial effect of curriculum management on the quality of education at MI Nurul Falah.

For the second hypothesis, which examines the effect of the student achievement variable on educational quality, the t-count value is $3.550 > 2.048$, with a significance value of $0.001 < 0.05$. Thus, H_0 is rejected and H_a is accepted, indicating that student achievement has a significant partial effect on the quality of education at MI Nurul Falah.

F-Test

Table 3. F-Test (Simultaneous Test)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	590.803	2	295.402	33.521	<.001 ^b
	Residual	246.745	28	8.812		
	Total	837.548	30			

a. Dependent Variable: MUTU PENDIDIKAN

b. Predictors: (Constant), PRESTASI SISWA, MANAJEMEN KURIKULUM

Based on the output from Table 3 above, the calculated F value (F_{count}) is 33.521, which is greater than the F_{table} value of 3.34, and the significance value is 0.001, which is less than 0.05. Therefore, it can be concluded that the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted, indicating that there

is a simultaneous significant influence of curriculum management and student achievement on educational quality.

Coefficient of Determination (R^2)

The analysis of the coefficient of determination shows that the R square value is 0.705, which, when multiplied by 100%, equals 70.5%. This means that the quality of education (Y) can be explained by the two independent variables—curriculum management (X_1) and student achievement (X_2)—by 70.5%. In other words, the combination of these two variables has a strong and significant influence in explaining the quality of education at MI Nurul Falah Ciater. The remaining 29.5% (100% – 70.5%) is influenced by other variables not included in this model. This relatively high R^2 value indicates that the regression model employed in this study has a good level of predictability with regard to educational quality.

2. Research Discussion

The Influence of Curriculum Management on Educational Quality

The results of this study indicate that curriculum management has a significant influence on the quality of education at MI Nurul Falah Ciater. This finding aligns with the theory proposed by (Mulyasa, 2016), which emphasizes that effective curriculum management involves comprehensive and continuous planning, implementation, and evaluation. When the curriculum is well-managed—aligned with the context of the educational institution, student needs, and contemporary dynamics—the entire learning process becomes more structured, meaningful, and directly impacts the improvement of educational quality. At MI Nurul Falah, initial observations revealed a lack of synergy in curriculum management that led to suboptimal instructional implementation. However, the analytical results demonstrate that improvements in curriculum management have the potential to significantly enhance overall educational quality.

In the context of the digital transformation era, curriculum management is expected to go beyond administrative functions and become adaptive, collaborative, and innovative. According to (Alosani et al., 2020)(Trilling & Fadel, 2016), 21st-century curricula must integrate technological literacy, critical thinking, communication, and collaboration skills. The limitations of conventional curriculum management—which often focuses more on content than on competence—have created a gap between written curricula and their real implementation in the classroom. (Sadieda & Sutini, 2023) also emphasized the importance of transformative curriculum leadership in madrasahs, so that teaching and learning processes can keep pace with contemporary demands. In this study, if teachers at MI Nurul Falah succeed in aligning the curriculum with ICT utilization and active pedagogical strategies, the quality of education will improve more significantly.

An analogy to illustrate this synergy is: “The curriculum is the map, and curriculum management is the navigator.” Without a navigator who understands the direction, terrain, and the needs of passengers, the journey of education can become misdirected or inefficient. Likewise in madrasahs, even if a curriculum is available, without effective management—such as proper scheduling, material adaptation, method selection, and evaluation—the outcomes will not be optimal. This study reinforces the understanding that a curriculum is not merely a document, but a system that must be professionally managed (Sadieda & Sutini, 2023).

This research also supports findings from previous studies. (Suparman, 2017) concluded that the effectiveness of curriculum implementation significantly determines the quality of madrasah graduates. Similarly, (Yusuf & Wahyuni, 2022) found that teacher involvement in curriculum management directly affects the quality of teaching and learning processes as well as student academic outcomes. However, this study contributes a novelty by emphasizing the importance of curriculum management synergy specifically within the context of digital transformation in madrasahs, a topic that has not been explicitly addressed in much of the existing local literature (Voogt et al., 2018)(Suryosubroto, 2015). Another novelty lies in its empirical emphasis on the integration of technology, adaptive assessment strategies, and curriculum leadership tailored to the needs of modern madrasahs.

Thus, this study enriches the discourse on curriculum management and educational quality, particularly within digitally transforming madrasah ibtdaiyah environments. The practical implications of this research suggest that responsive, collaborative, and innovative curriculum management can serve as a key driver in improving educational quality (OECD, 2020). MI Nurul Falah Ciater is encouraged to strengthen its curriculum monitoring and supervision systems, enhance teacher training in the development of digital-based instructional tools, and foster a reflective and collaborative culture within curriculum teams to address the challenges of 21st-century education (Zubaidah, 2016).

The Influence of Student Achievement on Educational Quality

The findings of this study indicate that student achievement has a significant influence on the quality of education at MI Nurul Falah Ciater. This suggests that the higher the students’ academic performance, the better the quality of education reflected within the madrasah. According to (Tuckman, 2013), student achievement is a key indicator of the quality of an instructional system, as it reflects the extent to which instructional goals have been achieved. Meanwhile, Bloom (1956), in his taxonomy of educational objectives, asserted that student achievement encompasses not only the cognitive domain but also the affective and psychomotor domains, thereby necessitating a holistic assessment of educational quality. This implies that efforts to improve

educational quality must be aligned with continuous improvements in student learning outcomes.

In contemporary research, student achievement is often linked to the quality of student-centered learning environments. McMillan and Schumacher (2014) emphasized that academic success results from supportive learning environments, contextualized instruction, and active student engagement. Similarly, (Mulyono, 2021)(Susanto, 2016) highlighted that the quality of education in madrasahs should be supported by fair assessment systems and instructional approaches that accommodate the diverse characteristics of learners. This study confirms that when students achieve high levels of academic performance, it positively impacts the institution's reputation, public trust, and recognition—all of which are key indicators of educational quality at the primary school level.

To illustrate this relationship with an analogy, student achievement can be viewed as a “clear mirror” of educational quality. When the mirror reflects a bright and sharp image (i.e., high achievement), it implies that the educational system—including teachers, curriculum, methods, and learning environment—is functioning effectively. Conversely, if the mirror appears cloudy (i.e., low achievement), it signals the need for a comprehensive system-wide evaluation. In the context of MI Nurul Falah Ciater, the variation in student outcomes—especially in subjects such as Mathematics and Arabic—serves as a crucial indicator that the educational system still requires alignment to ensure all students achieve optimal learning outcomes (Legi et al., 2025).

The novelty of this research lies in its positioning of student achievement as a dynamic indicator of educational quality within digitally transformative madrasah education (Yuhasnil, 2020). While previous studies have predominantly treated student achievement as a final output, this study elevates it as a strategic variable that can proactively drive educational quality (Aldwin Asandy Proboatmojo et al., 2025)(Timotheou et al., 2023). Furthermore, the research introduces a contextualized approach grounded in the real conditions of madrasah ibtidaiyah, which have been underrepresented in the international literature on educational quality and digital transformation. Thus, this study not only explains the relationship among variables but also emphasizes the importance of reorienting quality assurance strategies around academic performance in an era of inclusive digital education.

The Influence of Curriculum Management and Student Achievement on Educational Quality

The results of this study indicate that curriculum management and student achievement simultaneously have a significant influence on the quality of education at MI Nurul Falah Ciater. This finding suggests that educational quality is not determined by a single factor, but rather is the result of a synergy between effective curriculum management and optimal student academic achievement. This is supported by the theory

THE INFLUENCE OF CURRICULUM MANAGEMENT AND STUDENT ACHIEVEMENT IN ENHANCING QUALITY EDUCATION IN THE ERA OF DIGITAL TRANSFORMATION

Muhamad Akpan Pauzi¹, Emaliana Gustiani², Zaera Khuswatun Khasanah³, Nisak Ruwah Ibnatur Husnul⁴

of (F. D. Sari & Rugaiyah, 2024), who argue that a successful curriculum is not solely defined by its content design, but also by how its implementation translates into tangible learning outcomes. In this context, curriculum management serves as the guiding process, while student achievement acts as the measurable indicator of its success.

This result is aligned with (Bond et al., 2021) systemic approach, which asserts that educational reform is effective only when it encompasses policy, school leadership, instructional quality, and student outcomes. At MI Nurul Falah Ciater, the interaction between curriculum planning and student improvement—especially in core subjects such as Mathematics and Arabic—illustrates a gradually improving system integration. (Gorshenin, 2018) also emphasized that the quality of madrasah education is determined by two fundamental factors: adaptive academic management and students' capacity to achieve predetermined curricular competencies.

This is consistent with the (Bond et al., 2021), assertion that “strong curriculum design and high student achievement together contribute to overall school effectiveness.” Similarly, (Lawal et al., 2024), in Visible Learning, highlighted that school effectiveness depends on two main pillars: curriculum management that focuses on clarity of learning goals, and measurable student performance—both of which significantly influence educational quality. (Chambers & Harkins Monaco, 2023) found a positive correlation between students' academic capabilities and the quality of professionally managed instruction. According to (Triwiyanto et al., 2024), the successful integration of technology in education is contingent upon curriculum responsiveness to digital challenges and 21st-century literacies. At MI Nurul Falah, the ability of curriculum management to adjust through the use of online learning platforms, interactive videos, and competency-based digital materials has enhanced the relevance and adaptability of education delivery. Thus, curriculum management and student achievement emerge as the two foundational pillars of a digitally transformative educational model (Chanda et al., 2024).

A fitting analogy to explain this relationship is that curriculum management and student achievement function as the two wings of an aircraft (Aisyah et al., 2025). Both must move in harmony to maintain the balance and direction of educational quality (Bravo-Jaico et al., 2025). If one wing falters, the flight becomes unsteady and fails to reach its intended destination. In the context of madrasahs, curriculum management without corresponding academic achievement reduces to administrative formality, while student performance without curricular guidance risks losing long-term relevance (Gorshenin, 2018)(González-Pérez et al., 2025). Therefore, both must interact and evolve continuously, especially in today's digitalized educational landscape.

This study also extends previous research by (Kerimbayev et al., 2023), who emphasized that transforming educational quality in the digital era can only be realized when educational management systems synergize with student outcomes. Furthermore, this study fills a gap that has been underexplored in Indonesian literature—namely, how

THE INFLUENCE OF CURRICULUM MANAGEMENT AND STUDENT ACHIEVEMENT IN ENHANCING QUALITY EDUCATION IN THE ERA OF DIGITAL TRANSFORMATION

Muhamad Akpan Pauzi¹, Emaliana Gustiani², Zaera Khuswatun Khasanah³, Nisak Ruwah Ibnatur Husnul⁴

the collaboration between curriculum management and student achievement can shape educational quality in Islamic-based schools that also adopt digital technologies (P. P. Sari & Ayu, 2025). The state of the art presented by this study is that educational quality in religious primary schools is no longer solely defined by traditional academic values, but rather by how managerial innovation and academic achievement are harmoniously implemented within the context of modernization.

The novelty of this research lies in its approach, which views student achievement not merely as an output, but as an outcome driver that closely collaborates with adaptive curriculum planning and implementation (Romero & Ventura, 2020). Moreover, this study emphasizes that strengthening educational quality in madrasahs must be accompanied by improvements in technology-based curriculum management tools, as well as efforts to enhance student motivation and learning absorption. Consequently, this study provides both theoretical and practical contributions for the formulation of educational quality policies in madrasahs during this era of digital transformation.

D. Conclusion

Conclusion

Based on the results and discussion presented above, the conclusions of this study are as follows:

1. Curriculum management has a significant effect on the quality of education, as evidenced by a t-value of $2.742 > 2.048$ and a significance value of $0.011 < 0.05$, meaning that the better the planning, implementation, and evaluation of the curriculum, the more likely it is that the quality of education at the madrasah will improve.
2. Student achievement also has a significant influence on educational quality, as evidenced by a t-value of $3.550 > 2.048$ and a significance value of $0.001 < 0.05$, indicating that students' academic performance is a critical indicator for evaluating the quality of both the educational process and outcomes.
3. Simultaneously, curriculum management and student achievement significantly influence the quality of education, as evidenced by an F-value of $33.521 > 3.34$ and a significance value of $0.001 < 0.05$. This finding confirms that achieving high-quality education in the digital transformation era requires strengthened management systems and improved student outcomes in an integrated and balanced manner—not in isolation from one another.

Implications

1. For madrasahs, these findings emphasize the importance of implementing flexible curriculum management that is technologically adaptive and oriented toward student learning outcomes as part of efforts to improve education quality.

2. For teachers, it is necessary to develop competence in creatively implementing the curriculum and conducting assessments that support improvements in student achievement, especially in critical subjects such as Mathematics and Arabic.
3. For education policymakers, the results reinforce the urgency of policy support that integrates digital transformation into curriculum development and classroom instruction in madrasahs, including continuous professional development programs for educators.

Recommendations

1. Madrasahs should enhance comprehensive curriculum management—from student-centered planning and the integration of digital technologies to ongoing, data-driven learning evaluation.
2. Capacity-building programs for teachers should be implemented to support the design of contextual, engaging, and digitally integrated learning experiences that boost student motivation and achievement equitably.
3. Further research is recommended to explore other variables that may affect educational quality, such as school leadership, parental involvement, and the student learning culture within madrasah environments.

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