

Classroom Management as a Predictor of Teacher Professional Performance: Empirical Evidence from Islamic Elementary Schools in East Java

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Abstract:

This study investigates the extent to which classroom management predicts teacher professional performance in Islamic Elementary Schools (Madrasah Ibtidaiyah) across East Java Province, Indonesia. Employing a quantitative cross-sectional survey design, the study recruited 155 teachers through proportional stratified random sampling from a population of 252 educators distributed across seven institutions. Validated instruments assessed two primary constructs: classroom management—encompassing lesson planning, behavioral regulation, teacher-student interaction, motivational reinforcement, learning organization, technology integration, and creative instructional practices—and teacher performance, operationalized through dimensions of learning effectiveness, professional competence, and occupational motivation. Data were analyzed using descriptive statistics and simple linear regression. The findings revealed that classroom management demonstrates a statistically significant and positive association with teacher performance ($\beta = 0.366$, $t = 6.502$, $p < .001$), with the model accounting for 35.5% of the variance in performance outcomes ($R^2 = .355$). These results indicate that proficient classroom organization, systematic behavioral management, and structured instructional delivery contribute meaningfully to teacher professional efficacy. The study concludes that cultivating classroom management competencies constitutes a strategic lever for enhancing teacher performance within the Islamic elementary education sector. Practical implications are discussed with reference to targeted professional development initiatives and supervisory practices grounded in classroom-based evidence.

Keywords: Classroom Management, Teacher Performance, Madrasah Ibtidaiyah, Islamic Elementary Education, Professional Development.

INTRODUCTION

Teacher professional performance constitutes one of the most critical determinants of educational quality, influencing not only student learning outcomes but also the broader institutional effectiveness of schools as social and pedagogical systems (Ahmad et al., 2014; Kanya et al., 2021; Tomaszewski et al., 2022). Within the context of Islamic elementary schools in Indonesia—known as Madrasah Ibtidaiyah—this issue is particularly salient, given the dual mandate these institutions carry: delivering academically rigorous instruction while simultaneously nurturing students' moral character and religious identity.

Accordingly, improving teacher performance in these settings is both an educational imperative and a matter of institutional integrity (Mila Hasanah et al., 2024; Syamsiah et al., 2024).

Empirical observations and internal supervisory reviews conducted in Islamic elementary schools across East Java Province have consistently revealed performance-related challenges among a subset of teachers. These include inconsistent management of student behavior, inefficient utilization of instructional time due to classroom disruptions, and difficulty fostering a sustained, conducive learning atmosphere. Such challenges directly impede teaching effectiveness and, by extension, diminish the quality of student learning experiences. The broader literature affirms that teacher performance is shaped by a constellation of factors, including subject-matter expertise, pedagogical competence (Kunter et al., 2013; Ningtiyas & Jailani, 2018; Nopriyeni et al., 2019; Samantray et al., 2024), learning environment design (Imms & Byers, 2017; Manca et al., 2020), and classroom management proficiency (Aliakbari & Bozorgmanesh, 2015; Gage et al., 2018).

Among these factors, classroom management occupies a foundational role. It encompasses the deliberate design and organization of the learning environment, the establishment of behavioral norms and expectations, and the strategic facilitation of instructional activities (Nafisah et al., 2023; O'Neill & Stephenson, 2011; Plax, 2008; Smith & Reimer, 2018; Walters, 2022). Effective classroom management enables teachers to minimize instructional disruptions, maximize time-on-task, and cultivate meaningful student engagement—all of which are recognized correlates of professional teaching effectiveness (Dacholfany et al., 2024; Skiba et al., 2016; Spilles et al., 2024; Tincani, 2021). Conversely, inadequate classroom management has been associated with disorganized instruction, erosion of teacher authority, and diminished professional performance (Marder et al., 2023; Simpson et al., 2020; Walters, 2022).

Despite the recognized importance of classroom management, the extant research literature has predominantly examined its effects in relation to student-level outcomes such as academic achievement, behavioral engagement, and motivational orientations (Heemsoth, 2014; Smith & Reimer, 2018; Turtura et al., 2024; van Dijk et al., 2019). Considerably less attention has been directed toward understanding how classroom management practices shape teacher-level outcomes—particularly teacher professional performance. This represents a notable gap in the literature, especially within the Indonesian Islamic education context, where the intersection of pedagogical demands and religio-cultural expectations renders classroom management both more complex and more consequential.

The present study addresses this gap by repositioning classroom management as a direct predictor of teacher performance rather than merely an antecedent to student outcomes. This conceptual reframing reflects a growing scholarly recognition that effective classroom management is not simply a student-facing practice but a core dimension of teacher professional competence (Frank,

2018; Kayyali, 2025; Mayer, 2025). Situated within the Madrasah Ibtidaiyah context across East Java Province, this study thus offers both theoretical enrichment and practical guidance for educational policymakers, school leaders, and professional development practitioners.

Specifically, this study aims to empirically examine the predictive association between classroom management and teacher performance in Islamic elementary schools (Madrasah Ibtidaiyah) in East Java, Indonesia. The findings are expected to contribute to the development of evidence-based frameworks for teacher professional development, instructional supervision, and institutional quality assurance in the Indonesian Islamic education sector.

LITERATURE REVIEW

Classroom Management: Conceptual Foundations

Classroom management is broadly defined as the repertoire of strategies and actions teachers employ to organize the physical and social dimensions of the learning environment, regulate student behavior, and structure instructional activities in ways that promote productive engagement (Nafisah et al., 2023; Plax, 2008; Yusof et al., 2016). Far from being merely a behavioral intervention, contemporary scholarship conceptualizes classroom management as an integrated pedagogical system that encompasses preventive, proactive, and reactive dimensions (Reinke et al., 2022; Skiba et al., 2016).

The preventive dimension involves the deliberate structuring of the classroom environment—including physical arrangement, routine establishment, and norm-setting—to preempt behavioral disruptions before they arise (Divoll & Lastrapes, 2024; Mayer, 2025). The proactive dimension involves active monitoring of student engagement and the use of positive reinforcement, motivational scaffolding, and responsive instruction to sustain on-task behavior (Gage et al., 2018; Tincani, 2021). The reactive dimension, meanwhile, encompasses teachers' responses to behavioral challenges when they occur, including de-escalation strategies and restorative practices (Simpson et al., 2020). Together, these dimensions form a coherent classroom management framework that supports both behavioral order and instructional quality (Kayyali, 2025).

Classroom Management and Educational Outcomes

A robust body of empirical evidence links effective classroom management to a range of positive educational outcomes. At the student level, classroom management has been associated with enhanced academic achievement (Smith & Reimer, 2018; Turtura et al., 2024), improved learning motivation (van Dijk et al., 2019), and greater literacy development among students with behavioral and emotional challenges (Garwood & Vernon-Feagans, 2017). Putra and Yanto (2025), in a recent meta-analytic review, confirmed that classroom management strategies exert a consistent positive influence on student academic success.

Regarding teacher-level outcomes, the evidence is more limited but increasingly compelling. Research suggests that proficient classroom management

is associated with reduced teacher stress, greater instructional coherence, and enhanced professional self-efficacy (O'Neill & Stephenson, 2011; Vlčková et al., 2019). Furthermore, the structural and procedural dimensions of classroom management—such as activity sequencing, transition management, and time utilization—have been identified as mechanisms through which teachers sustain instructional momentum and assert professional agency (Thiel et al., 2012; Heemsoth, 2014). These insights suggest that classroom management may constitute a meaningful predictor of teacher performance, warranting direct empirical examination.

Teacher Performance in Islamic Elementary Education

Teacher performance, in the educational research tradition, is typically operationalized through dimensions encompassing instructional planning, pedagogical delivery, student assessment, and professional conduct (Ahmad et al., 2014; Kanya et al., 2021). Within the Madrasah Ibtidaiyah context, this construct acquires additional complexity, as teachers are expected to integrate academic instruction with the cultivation of students' Islamic moral values, character formation, and religious practice (Mubarok et al., 2023; Syamsiah et al., 2024). This dual instructional mandate renders classroom management particularly critical in Islamic elementary schools. A well-managed classroom not only facilitates cognitive learning but also creates the structural conditions necessary for moral and character development—outcomes that are central to the educational vision of Madrasah Ibtidaiyah (Nafisah et al., 2023; Reinke et al., 2022). Despite this, empirical research examining the relationship between classroom management and teacher performance in this specific institutional context remains scarce, reinforcing the timeliness and relevance of the present investigation.

RESEARCH METHOD

Research Design

This study adopted a quantitative cross-sectional survey design to examine the predictive association between classroom management and teacher professional performance. This design was deemed appropriate given the study's objective of testing a hypothesized predictive relationship between two constructs through the analysis of self-reported data collected at a single point in time (Creswell & Creswell, 2018). The use of a survey instrument enabled the systematic collection of data from a geographically distributed sample while maintaining methodological rigor and ecological validity.

Research Setting, Population, and Sampling

The study was conducted across seven state-accredited Islamic Elementary Schools (Madrasah Ibtidaiyah Negeri) located in East Java Province, Indonesia, under the administrative auspices of the Ministry of Religious Affairs (Kementerian Agama). Data collection was undertaken over the course of twelve months, spanning January through December 2024.

The target population comprised all 252 certified classroom teachers employed across the seven participating institutions, as enumerated in the official Education Management Information System (EMIS) records. Sample size determination followed the Slovin formula, applied at a 5% margin of error, yielding a minimum required sample of 155 respondents. Participant selection employed proportionate stratified random sampling, wherein each participating school constituted an independent stratum. The number of participants drawn from each stratum was proportional to that institution's share of the total population, after which respondents within each stratum were selected through simple random sampling. This procedure ensured balanced institutional representation and minimized sampling bias.

Instrumentation

Data were gathered using a researcher-developed, structured questionnaire grounded in established theoretical frameworks and validated indicators pertinent to both research constructs. The classroom management instrument encompassed seven subscales: lesson planning, classroom rules and normative structures, teacher-student interactional quality, motivational reinforcement strategies, learning activity organization, educational technology integration, and creative instructional practices. The teacher performance instrument assessed three dimensions: learning effectiveness, professional competence, and occupational motivation. All items were formatted using a five-point Likert response scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Content validity was established through expert review by qualified educational specialists. Construct validity was assessed through item-level Pearson product-moment correlation analysis, with all items meeting or exceeding the minimum threshold of $r > .444$. Internal consistency reliability was evaluated using Cronbach's alpha, yielding values of $\alpha = .787$ for the classroom management scale and $\alpha = .744$ for the teacher performance scale—both exceeding the conventionally accepted threshold of .70 and indicating satisfactory reliability (Hair et al., 2019).

Data Analysis

Quantitative data were analyzed using IBM SPSS Statistics version 24. Descriptive statistical analyses—including means, standard deviations, and distributional summaries—were computed to characterize participants' perceptions of classroom management and teacher performance. Prior to inferential analysis, the classical regression assumptions of normality, linearity, and the absence of autocorrelation were examined and confirmed. Simple linear regression analysis was subsequently conducted to assess the predictive relationship between classroom management (independent variable) and teacher performance (dependent variable). The statistical significance of the regression coefficient was evaluated using a two-tailed t-test, with a threshold of $p < .05$. The coefficient of determination (R^2) was used to quantify the proportion of variance

in teacher performance attributable to classroom management.

Research Ethics

This research was conducted in accordance with established principles of research ethics. All participants received comprehensive information regarding the study's objectives, data collection procedures, and confidentiality protections prior to participation. Informed consent was obtained voluntarily from each respondent. All personal identifiers were anonymized, and data were used exclusively for academic and scholarly purposes.

RESULTS AND DISCUSSION

Results

Descriptive Statistics

Table 1 presents the descriptive statistical findings for the classroom management and teacher performance variables, based on responses from 155 teachers across the seven participating Madrasah Ibtidaiyah in East Java Province.

Table 1. Descriptive Statistics of Research Variables (N = 155)

Variable	Classroom Management (X)	Teacher Performance (Y)
N Valid	155	155
Missing	0	0
Mean	78.43	80.15
Std. Deviation	6.87	7.12
Minimum	62	62
Maximum	95	95

The classroom management variable yielded a mean score of 78.43 (SD = 6.87), reflecting moderate-to-high proficiency in classroom management practices among the sampled teachers. The teacher performance variable similarly demonstrated a comparatively elevated mean of 80.15 (SD = 7.12), indicative of generally favorable professional performance across the participating institutions. When converted to a five-point categorical scale—with ranges corresponding to very low (1.00–1.80), low (1.81–2.60), moderate (2.61–3.40), high (3.41–4.20), and very high (4.21–5.00)—the classroom management scores fell within the high category, while teacher performance scores resided at the high-to-very-high boundary. Nevertheless, the standard deviation values suggest meaningful inter-individual variation, underscoring the presence of performance differentials among teachers that warrant further institutional attention.

Reliability Analysis

Internal consistency reliability was assessed for both instruments using Cronbach's alpha coefficient. As reported in Table 2, both instruments surpassed the conventional acceptability threshold of $\alpha \geq .70$ (Hair et al., 2019), confirming satisfactory reliability.

Table 2. Reliability Coefficients for Research Instruments

Variable	Cronbach's Alpha (α)
Classroom Management (X)	0.787
Teacher Performance (Y)	0.744

The Cronbach's alpha values of .787 and .744 for classroom management and teacher performance, respectively, confirm that both instruments measure their intended constructs with acceptable consistency and stability, rendering them appropriate for inferential analysis.

Normality Test

The normality of residuals was evaluated using the one-sample Kolmogorov-Smirnov test. As summarized in Table 3, the analysis produced an asymptotic significance value of .200, which substantially exceeds the $\alpha = .05$ threshold, indicating that the residuals conform to a normal distribution and that the normality assumption for linear regression was satisfied.

Table 3. One-Sample Kolmogorov-Smirnov Normality Test Results

Parameter	Unstandardized Residual
N	155
Mean	.0000000
Std. Deviation	4.126532
Kolmogorov-Smirnov Z (Absolute)	.064
Asymp. Sig. (2-tailed)	.200

Model Summary

Table 4 presents the summary statistics for the simple linear regression model, wherein classroom management served as the sole predictor of teacher performance.

Table 4. Regression Model Summary

Model	R	R ²	Adjusted R ²	Durbin-Watson
1	.596	.355	.351	1.995

Note. Predictors: Classroom Management. Dependent Variable: Teacher Performance.

The regression model yielded an R² of .355, indicating that classroom management accounted for approximately 35.5% of the total variance in teacher performance—a moderate effect size consistent with norms in educational research (Cohen, 1988). The adjusted R² of .351 affirms model stability with minimal shrinkage. The Durbin-Watson statistic of 1.995 falls within the acceptable range (1.5–2.5), confirming the absence of first-order autocorrelation in the residuals.

ANOVA

Table 5 presents the analysis of variance results assessing the overall significance of the regression model.

Table 5. ANOVA Results for the Regression Model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1046.317	1	1046.317	42.273	.000
Residual	1903.458	153	12.441	—	—
Total	2949.775	154	—	—	—

The ANOVA results yielded a statistically significant F-value of 42.273 ($p < .001$), confirming that the regression model with classroom management as the predictor variable achieves a good overall fit and that the observed relationship between the two constructs is unlikely to be attributable to sampling error.

Regression Coefficients

The unstandardized and standardized regression coefficients are reported in Table 6.

Table 6. Regression Coefficients for Classroom Management Predicting Teacher Performance

Model	B	Std. Error	Beta (β)	t	Sig.
(Constant)	41.672	5.213	—	7.993	.000
Classroom Management	.366	.056	.366	6.502	.000

Note. Dependent Variable: Teacher Performance.

The regression coefficient for classroom management was positive and statistically significant ($B = .366$, $\beta = .366$, $t = 6.502$, $p < .001$), indicating that for each unit increase in classroom management proficiency, teacher performance increases by .366 units, holding all else constant. The positive direction of the beta coefficient affirms that more effective classroom management practices are consistently associated with higher levels of teacher professional performance. In practical terms, these findings substantiate the claim that classroom management quality is a significant statistical predictor of teacher effectiveness across key professional domains, including instructional planning and delivery, utilization of teaching time, and behavioral governance of the learning environment.

Discussion

The findings of this study provide robust empirical support for the proposition that classroom management functions as a significant and positive predictor of teacher professional performance in Islamic Elementary Schools (Madrasah Ibtidaiyah) in East Java, Indonesia. This result is consistent with a growing body of theoretical and empirical literature that repositions classroom management not merely as a student-facing instructional strategy, but as a core dimension of teacher professional competence with direct implications for performance quality (Frank, 2018; Kayyali, 2025; Mayer, 2025).

The positive and significant regression coefficient ($\beta = .366$, $p < .001$) indicates that teachers who demonstrate greater proficiency in classroom management—encompassing structured lesson planning, effective behavioral regulation, optimized use of instructional time, and purposeful teacher-student interaction—tend to exhibit commensurately higher levels of professional performance. This finding aligns with prior research demonstrating that well-organized classrooms foster the structural conditions necessary for effective teaching, including reduced time-on-disruption, enhanced instructional coherence, and more productive pedagogical interactions (Dacholfany et al., 2024; Reinke et al., 2022; Skiba et al., 2016). Putra and Yanto (2025) similarly concluded, through meta-analytic synthesis, that classroom management strategies consistently generate positive educational outcomes, a conclusion that the present study extends to the domain of teacher performance.

The moderate explanatory power of the model ($R^2 = .355$) merits interpretive consideration. While classroom management emerges as a substantively important predictor, the finding that 64.5% of the variance in teacher performance remains unexplained indicates that a constellation of additional variables likely contributes to professional effectiveness in this context. These may include, but are not limited to, teacher self-efficacy, motivational orientation, ongoing professional development participation, institutional support structures, transformational and instructional leadership quality, and the broader organizational climate of the madrasah (Kanya et al., 2021; Syamsiah et al., 2024). In particular, principal instructional leadership and madrasah organizational climate warrant more systematic investigation as potentially influential

institutional-level variables, given that the quality of leadership support and the overall school climate are likely to either amplify or attenuate the extent to which individual classroom management proficiency translates into sustained professional performance gains. This observation is consistent with Garwood and Vernon-Feagans (2017) and van Dijk et al. (2019), who similarly noted that classroom management, while influential, functions most effectively when embedded within a comprehensive ecosystem of teacher support and institutional development.

From a contextual perspective, the Madrasah Ibtidaiyah setting introduces dimensions of classroom management complexity that distinguish it from conventional elementary school environments. Teachers in these institutions are simultaneously responsible for academic instruction and the cultivation of students' Islamic moral character—a dual pedagogical mandate that demands not only behavioral competence but also culturally responsive relationship-building, sensitivity to spiritual developmental needs, and integration of religio-ethical norms within everyday classroom governance (Mubarok et al., 2023; Nafisah et al., 2023). The synergistic relationship between Islamic educational values, community expectations, and professional teaching practices renders classroom management a particularly consequential competency in this setting. These findings thus enrich the existing literature by demonstrating that the relationship between classroom management and teacher performance is not only empirically generalizable but is also shaped by the distinctive institutional logics of Islamic education.

The theoretical contribution of this study lies in its empirical reframing of classroom management as a direct predictor of teacher-level, rather than exclusively student-level, outcomes. Previous research has predominantly focused on the downstream effects of classroom management on student achievement, engagement, and motivation (Heemsoth, 2014; Smith & Reimer, 2018; Turtura et al., 2024). By demonstrating a significant path from classroom management to teacher performance, this study fills a recognized gap in the literature and expands the conceptual scope of classroom management as a construct in educational research.

The practical implications of these findings are substantial. First, they underscore the urgency of incorporating classroom management as a central and structured component of continuous teacher professional development programs in Islamic elementary schools. Rather than treating classroom management as a subsidiary skill or an assumed prerequisite, educational authorities and school leaders should invest in targeted, evidence-informed training that builds teacher capacity across all dimensions of classroom management, from lesson planning and behavioral regulation to motivational facilitation and creative instructional design. Second, these findings highlight the importance of instructional supervision that is explicitly grounded in classroom-based observation and formative feedback, enabling principals and madrasah supervisors to identify and address specific classroom management deficiencies in a timely and systematic

manner.

CONCLUSION

This study provides empirical confirmation that classroom management demonstrates a positive and statistically significant association with teacher professional performance in Islamic Elementary Schools (Madrasah Ibtidaiyah) across East Java Province, Indonesia. The regression model explained 35.5% of the variance in teacher performance, affirming classroom management as a meaningful and practically relevant predictor of professional effectiveness. These findings indicate that teachers who demonstrate greater proficiency in organizing learning activities, regulating student behavior, and structuring instructional delivery are better positioned to achieve higher levels of professional performance across the dimensions of learning effectiveness, pedagogical competence, and occupational motivation.

From a policy and practice standpoint, these results advocate for the systematic prioritization of classroom management competency development within continuous teacher professional development programs, complemented by structured supervisory oversight from school administrators and educational policymakers. The findings also call for institutional investments in creating enabling conditions, including collaborative professional learning communities and leadership support structures, that empower teachers to translate improved classroom management skills into sustained performance gains.

Notwithstanding its contributions, this study acknowledges several limitations that delineate the scope of its conclusions. The reliance on a cross-sectional survey design precludes causal inference, and the self-reported nature of the data introduces the possibility of social desirability bias. Moreover, the study's geographic focus on East Java Province limits the generalizability of its findings to other regional and institutional contexts within Indonesian Islamic education. Critically, as the sample was drawn exclusively from state-accredited public madrasahs (Madrasah Ibtidaiyah Negeri), the findings should not be extrapolated to private madrasahs (Madrasah Ibtidaiyah Swasta), where contextual factors such as resource availability, teacher recruitment standards, institutional governance, and accountability structures may differ substantially and could yield divergent findings. Additionally, the absence of confirmatory factor analysis (CFA) in the validation process represents a methodological constraint that should be addressed in future psychometric studies of these instruments. Future research should address these limitations by adopting longitudinal or experimental designs, incorporating observational measures of classroom management, and expanding sampling to encompass a broader range of provinces and school levels. Mixed-methods approaches that combine quantitative assessment with qualitative exploration of classroom management practices in naturalistic settings would further enrich understanding of the mechanisms underlying the relationship between classroom management and teacher performance. Additionally, future studies are strongly encouraged to examine the mediating and moderating roles

of variables such as teacher self-efficacy, principal instructional leadership, and madrasah organizational climate, which may amplify or attenuate the associations identified in the present study. Given that the present model explained only 35.5% of the variance in teacher performance, the systematic investigation of principal instructional leadership quality and madrasah organizational climate as potential mediators or moderators of this relationship is particularly warranted, as these institutional-level variables may represent pivotal levers through which policy interventions can enhance teacher professional outcomes.

REFERENCES

- Ahmad, I., Said, H., Syed Mansor, S. S., Mokhtar, M., & Hassan, Z. (2014). How teacher moderates the relationship between democratic classroom environment and student engagement. *Review of European Studies*, 6(4), 239–248. <https://doi.org/10.5539/res.v6n4p239>
- Aliakbari, M., & Bozorgmanesh, B. (2015). Assertive classroom management strategies and students' performance: The case of EFL classroom. *Cogent Education*, 2(1), 1012899. <https://doi.org/10.1080/2331186X.2015.1012899>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Dacholfany, M. I., Antoni, R., Sulissusiawan, A., Rijal, S., Utiahman, A., Vanni Alam, H., & Bagea, I. (2024). The effectiveness of teacher professional development program on classroom and behavior management: A systematic review. *Journal of Education Culture and Society*, 15(2), 451–470. <https://doi.org/10.15503/jecs2024.2.451.470>
- Divoll, K. A., & Lastrapes, R. E. (2024). Creating a positive learning environment. In *The Special Educator's Guide to Behavior Management* (pp. 3–18). Routledge. <https://doi.org/10.4324/9781003526469-2>
- Frank, C. L. (2018). *The teacher's role*. In *Managing Classrooms and Student Behavior* (pp. 87–110). Routledge. <https://doi.org/10.4324/9781315193205-5>
- Gage, N. A., Scott, T., Hirn, R., & MacSuga-Gage, A. S. (2018). The relationship between teachers' implementation of classroom management practices and student behavior in elementary school. *Behavioral Disorders*, 43(2), 302–315. <https://doi.org/10.1177/0198742917714809>
- Garwood, J. D., & Vernon-Feagans, L. (2017). Classroom management affects literacy development of students with emotional and behavioral disorders. *Exceptional Children*, 83(2), 123–142. <https://doi.org/10.1177/0014402916651846>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Heemsoth, T. (2014). Classroom climate as mediator of the relationship between classroom management and motivation in physical education. *Psychologie in Erziehung und Unterricht*, 61(3). <https://doi.org/10.2378/peu2014.art16d>

- Imms, W., & Byers, T. (2017). Impact of classroom design on teacher pedagogy and student engagement and performance in mathematics. *Learning Environments Research*, 20(1), 139–152. <https://doi.org/10.1007/s10984-016-9210-0>
- Kanya, N., Fathoni, A. B., & Ramdani, Z. (2021). Factors affecting teacher performance. *International Journal of Evaluation and Research in Education*, 10(4), 1462. <https://doi.org/10.11591/ijere.v10i4.21693>
- Kayyali, M. (2025). Classroom management. In *Exploration of K-12 Teaching and Learning for Teacher Educators* (pp. 53–78). IGI Global. <https://doi.org/10.4018/979-8-3693-9370-3.ch003>
- Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional competence of teachers: Effects on instructional quality and student development. *Journal of Educational Psychology*, 105(3), 805–820. <https://doi.org/10.1037/a0032583>
- Manca, S., Cerina, V., Tobia, V., Sacchi, S., & Fornara, F. (2020). The effect of school design on users' responses: A systematic review (2008–2017). *Sustainability*, 12(8), 3453. <https://doi.org/10.3390/su12083453>
- Marder, J., Thiel, F., & Göllner, R. (2023). Classroom management and students' mathematics achievement: The role of students' disruptive behavior and teacher classroom management. *Learning and Instruction*, 86, 101746. <https://doi.org/10.1016/j.learninstruc.2023.101746>
- Mayer, S. (2025). The secret ingredients to classroom management: Research-based strategies for building positive and productive learning environments. *The Teacher Educator*, 1–7. <https://doi.org/10.1080/08878730.2025.2573372>
- Mila Hasanah, Yasir Arafat, Mahyudin Barni, Ahmad Thib Raya, & Aprilianto, A. (2024). Teachers' strategies for managing disruptive behavior in the classroom during the learning process. *Nazhruna: Jurnal Pendidikan Islam*, 7(3), 628–645. <https://doi.org/10.31538/nzh.v7i3.7>
- Mubarok, R., Sholeh, M., & Irayana, I. (2023). Classroom management strategy in implementing the Merdeka curriculum (Independent Curriculum) in primary education institutions. *Al-Adzka: Jurnal Ilmiah Pendidikan Guru Madrasah Ibtidaiyah*, 13(2), 189–202. <https://doi.org/10.18952/aladzkapgmi.v13i2.11356>
- Nafisah, A., Marmoah, S., & Riyadi, R. (2023). Teacher classroom management skills: Case study of the activator school programme in Indonesia. *International Journal of Learning, Teaching and Educational Research*, 22(12), 389–407. <https://doi.org/10.26803/ijlter.22.12.19>
- Ningtiyas, F. A., & Jailani. (2018). Does teacher's training affect the pedagogical competence of mathematics teachers? *Journal of Physics: Conference Series*, 1097, 012106. <https://doi.org/10.1088/1742-6596/1097/1/012106>
- Nopriyeni, N., Prasetyo, Z. K., & Djukri, D. (2019). The implementation of mentoring based learning to improve pedagogical knowledge of prospective teachers. *International Journal of Instruction*, 12(3), 529–540. <https://doi.org/10.29333/iji.2019.12332a>

- O'Neill, S. C., & Stephenson, J. (2011). The measurement of classroom management self-efficacy: A review of measurement instrument development and influences. *Educational Psychology*, 31(3), 261–299. <https://doi.org/10.1080/01443410.2010.545344>
- Plax, T. G. (2008). Classroom management techniques. In *The International Encyclopedia of Communication*. Wiley. <https://doi.org/10.1002/9781405186407.wbiecc032>
- Putra, E., & Yanto, M. (2025). Classroom management: Boosting student success – a meta-analysis review. *Cogent Education*, 12(1). <https://doi.org/10.1080/2331186X.2025.2458630>
- Reinke, W. M., Herman, K. C., & Copeland, C. B. (2022). Student engagement: The importance of the classroom context. In *Handbook of Research on Student Engagement* (pp. 529–544). Springer. https://doi.org/10.1007/978-3-031-07853-8_25
- Rohmansyah, N. A., & Hiruntrakul, A. (2022). Effective learning environments in physical education. *Physical Education Theory and Methodology*, 22(3s), S79–S84. <https://doi.org/10.17309/tmfv.2022.3s.11>
- Samantray, A., Behera, R. R., & Acharya, A. K. (2024). Effectiveness of ICT-integrated pedagogy on pre-service teachers' teaching competence in mathematics. *Frontiers in Education*, 9. <https://doi.org/10.3389/educ.2024.1401188>
- Simpson, J. N., Hopkins, S., Eakle, C. D., & Rose, C. A. (2020). Implement today! Behavior management strategies to increase engagement and reduce challenging behaviors in the classroom. *Beyond Behavior*, 29(2), 119–128. <https://doi.org/10.1177/1074295620909448>
- Skiba, R., Ormiston, H., Martinez, S., & Cummings, J. (2016). Teaching the social curriculum: Classroom management as behavioral instruction. *Theory Into Practice*, 55(2), 120–128. <https://doi.org/10.1080/00405841.2016.1148990>
- Smith, E., & Reimer, D. (2018). Classroom management, disciplinary climate and mobbing: Results from TIMSS 2011. *Nordic Studies in Education*, 38(01), 35–51. <https://doi.org/10.18261/issn.1891-5949-2018-01-04>
- Spilles, M., Huber, C., Kaspar, K., & Hennemann, T. (2024). Die Bedeutung der von Grundschulkindern wahrgenommenen Beziehung zu ihrer Klassenlehrkraft für deren Einhaltung von Klassenregeln. *Zeitschrift für Erziehungswissenschaft*, 27(1), 257–275. <https://doi.org/10.1007/s11618-023-01205-4>
- Syamsiah, Ramly, M., Basalamah, S., & Bunyamin, A. (2024). Performance enhancement of madrasah teachers: A structural equation model. *Revista de Gestão Social e Ambiental*, 18(2), e04856. <https://doi.org/10.24857/rgsa.v18n2-067>
- Thiel, F., Richter, S. G., & Ophardt, D. (2012). Management of transitions in the classroom: An expert-novice study about classroom management. *Zeitschrift für Erziehungswissenschaft*, 15(4), 727–752. <https://doi.org/10.1007/s11618-012-0325-5>

- Tincani, M. (2021). *Preventing challenging behavior in your classroom*. Routledge. <https://doi.org/10.4324/9781003237235>
- Tomaszewski, W., Xiang, N., Huang, Y., Western, M., McCourt, B., & McCarthy, I. (2022). The impact of effective teaching practices on academic achievement when mediated by student engagement: Evidence from Australian high schools. *Education Sciences*, 12(5), 358. <https://doi.org/10.3390/educsci12050358>
- Turtura, J., Sutherland, M., Kosty, D., Doabler, C. T., Lussier, C., & Clarke, B. (2024). Examining the relations between interventionists' use of classroom management and student mathematics gains within a Tier 2 kindergarten mathematics intervention. *Psychology in the Schools*, 61(6), 2508–2528. <https://doi.org/10.1002/pits.23177>
- van Dijk, W., Gage, N. A., & Grasley-Boy, N. (2019). The relation between classroom management and mathematics achievement: A multilevel structural equation model. *Psychology in the Schools*, 56(7), 1173–1186. <https://doi.org/10.1002/pits.22254>
- Vlčková, K., Květon, P., Ježek, S., Mareš, J., & Lojdová, K. (2019). Adaptation of the behavior and instructional management scale to Czech classroom conditions. *Studia Paedagogica*, 24(1), 135. <https://doi.org/10.5817/SP2019-1-6>
- Walters, A. G. (2022). Classroom management 3.0. In *Research Anthology on Interventions in Student Behavior and Misconduct* (pp. 804–821). IGI Global. <https://doi.org/10.4018/978-1-6684-6315-4.ch042>
- Yusof, C., Mariani, M., & Hafiza, S. (2016). Approaches and models of behaviour management in classroom. In *Knowledge, Service, Tourism & Hospitality* (pp. 55–60). CRC Press. <https://doi.org/10.1201/b21184-12>