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Classroom Management Practices of Teachers and Mathematics Performance of Learners

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Abstract

The study determined the level of classroom management of teachers along organization of classroom activities, establishment of rules and expectations, management of student behavior, and creation of a conducive learning environment. This study also assessed the level of Mathematics performances of learners in terms of solves problems involving factors of polynomials, solves problems involving linear equations in two variables, determines the inverse, converse, and contrapositive of an if-then statement; and finds the domain and range of a function. Likewise, this study measures the significant relationship between classroom management practices and Mathematics performance of learners. Employing a descriptive-correlational method, the study involved 85 Grade 8 learners from San Fernando District, with data collected through validated researcher-made test and survey questionnaire. Guided by the following theories: Bandura's social cognitive theory, Deci and Ryan's self-determination theory and Locke's goal-setting theory. The study revealed that the classroom management of teachers is at highly managed level, yet the mathematics performance of learners remains at a developing level. It was then concluded that there was no significant relationship between classroom management practices and mathematics performance of learners. It is recommended that future efforts should focus on other factors like teaching strategies, curriculum, motivation, and resources. While classroom management is important, improving pedagogical approaches and learner-centered methods may have a more direct impact on math achievement. Teachers and administrators should prioritize professional development in effective math instruction alongside maintaining good classroom management.

Keyword: Classroom Management, Mathematics Performance

1. Introduction

Classroom management practices are very important because it helps students to stay focused, to behave well, and to learn better. Though, many teachers face issues such as misbehavior of the students, lack of resources, and difficulty in using or applying certain classroom management strategies. Effective classroom management practices make a classroom a conducive learning environment where students can succeed academically and globally. In mathematics, classroom management practices become even more serious, as the subject often requires a conducive learning environment and structured approach to raise the learners understanding and engagement.

Mathematics belongs to a complex subject that effortlessly sparked tension and frustration in some learners leading to disliking it. To attain a high mathematical performance the learners, need to develop their unique skills and promote logical thinking, the subject requires analyzing and applying their existing knowledge to build organized competencies. Thus, in Mathematics, the learners should attain positive mathematical performance, and they should understand and apply mathematical knowledge, skills, and concepts. Many students find math a difficult subject, which affects their overall mathematics performance. Common issues include difficulty in understanding concepts, lack of practice, and anxiety about math tests.

In the same tone, in a classroom setting, only a few learners can perform accurately and efficiently when tasked to solve problems and perform mathematical calculations and operations. Students are more motivated, focused, and better able to comprehend math classes when teachers apply effective classroom management practice, which includes organization of classroom activities, establishment of rules and expectations management of student behavior and creation of a conducive learning environment. However, if the classroom is messy and unorganized, students become distracted and find it difficult to study especially in mathematics. Effective classroom management practice helps the learners feel comfortable, supported, and prepared to learn, which in turn helps them do better and raise their mathematics achievement.

Conversely, in the Sustainable Development Goal (SDG) 2030 particularly in Goal 4: Quality Education states that by 2030 all individuals, from birth to old age, should have access to equitable, inclusive, and quality education that fosters lifelong learning, social mobility, and empowerment, enabling them to acquire the knowledge, skills, and values necessary to thrive in an ever-changing world. This includes not only formal education, but also vocational training, digital literacy, and continuous learning opportunities that cater to diverse needs, abilities, and contexts, ultimately promoting a culture of knowledge, creativity, and innovation.

In the study of Larson et. al (2018); Cambay and Paglinawan (2024); Reinke et al. (2023) revealed that the use of culturally responsive management approaches combined with positive behavior supports such as explicit expectations and frequent teacher feedback was associated with improved student behavior and classroom participation. Likewise, Alasmari and Althaqafi (2024) demonstrated that proactive classroom management strategies are positively linked to teacher self-efficacy and perceived effectiveness, suggesting that educators who anticipate and prevent misbehavior are better able to sustain engagement and instructional continuity.

In the same manner, Garcia, Santos, and Delos Reyes (2019);Lopez, Cruz, and Navarro (2021) Ramirez et al. (2023); Torres et al. (2025) found that interactive learning activities and teacher-student rapport significantly reduced classroom disruptions and emphasized the effectiveness of culturally responsive management techniques in public elementary schools. They also demonstrated how clear rules, consistent routines, and positive reinforcement improved student engagement in secondary classrooms. Additionally, they reported that integrating digital tools with proactive behavior strategies enhanced both discipline and academic participation, collectively underscoring that adaptive, context-based classroom management practices are central to improving student outcomes across Philippine educational settings.

The reviewed studies collectively underscore the critical role of effective classroom management practices in fostering a conducive learning environment. Graham (2019) emphasizes that teachers who employ strategic management techniques tend to experience fewer behavioral issues and higher student engagement. Hepburn et al. (2021) further support this by highlighting the correlation between consistent management strategies and improved student outcomes. Johler et al. (2022) add that proactive classroom management not only reduces disruptions but also enhances teachers' instructional effectiveness. Larson et al. (2021) and Scholar and Muhammad (2022) both stress the importance of teacher training and professional development in implementing successful classroom management practices, while Obispo et al. (2021) and Sanetti et al. (2018) point out that understanding student behavior is fundamental to developing tailored management approaches. Nisar et al. (2019), along with Poulou et al. (2019), reinforce that context-specific strategies are vital for addressing diverse classroom dynamics, leading to the motivation for conducting this study.

Several studies have highlighted the positive impact of effective classroom management on student learning outcomes, showing that organized classroom activities, clear rules, and consistent behavior management improve academic performance (Bosman & Schulze, 2018; Turgut & Turgut, 2018; Fauzi & Widjajanti, 2018). Research also indicates that a conducive learning environment fosters student engagement and problem-solving skills, particularly in mathematics (El-Adl & Alkharusi, 2020; Hawes et al., 2019; Tokac et al., 2019). Moreover, studies demonstrate a significant relationship between teachers' classroom management practices and students' performance in specific cognitive tasks, such as solving equations, understanding functions, and applying logical reasoning (Daucourt et al., 2021; Fung et al., 2018; Hascoët et al., 2021; Nida et al., 2020). However, few studies have examined how these classroom management strategies specifically affect learners' mathematics performance in the San Fernando District, particularly in topics like polynomials, linear equations, and function analysis. This study aims to bridge this gap by evaluating the level of classroom management of teachers and its influence on mathematics performance, while also proposing targeted interventions to enhance learning outcomes.

In Philippines, the study of Manzano (2025); Paynandos and Doronio (2025); Borres et al. (2025) consistently show that effective classroom management practices are positively associated with students' mathematics performance. For instance, clear rules, proper planning, and positive reinforcement help create an organized learning environment that supports student engagement in math. However, weak classroom management may lead to poor study habits and lower academic outcomes. Moreover, research indicates that classroom management works best when combined with good instructional planning and positive student attitudes toward mathematics.

In some public schools in Camarines Sur, inconsistent classroom management practices among teachers such as unclear rules, lack of positive reinforcement, and ineffective discipline contribute to students' low engagement and motivation in learning mathematics. This situation has been linked to poor performance in national and local math assessments. As reported by the Department of Education (DepEd) in School Division of Camarines Sur in 2021 found that classrooms with well-structured management strategies like clear routines, student-centered activities, and positive behavioral interventions showed higher student achievement in mathematics. Conversely, classrooms lacking these practices experienced frequent disruptions, making it difficult for teachers to deliver effective instruction and for students to grasp mathematical concepts.

A pressing challenge within this educational context is the noticeable gap in mathematics performance among Grade 8 learners, which appears to be closely linked to the classroom management strategies employed by teachers. As learners transition into more demanding subject content, effective classroom management becomes essential in creating an environment conducive to learning, engagement, and understanding. Poor classroom management can hinder instructional delivery, disrupt learner focus, and ultimately impede students' mastery of mathematical concepts. Therefore, understanding the specific classroom management practices of teachers and their impact on learners' mathematical performance is crucial. Addressing these challenges is vital not only for improving individual student outcomes but also for fostering a positive learning environment that supports numeracy development. This study is driven by the need to identify effective classroom management strategies that can enhance mathematics achievement, thereby informing targeted interventions and professional development initiatives. The findings of this research endeavor have the potential to inform pedagogical practices, promote student performance, and enrich the educational landscape of the Division of Camarines Sur.

2. Research Objectives

This study determined the relationship between classroom management practices of teachers and the Mathematics performance of Grade 8 learners of San Fernando District, Division of Camarines Sur. Thus, this study achieved the following objectives: to determine the level of classroom management of teachers along organization of classroom activities, establishment of rules and expectations, management of student behavior, and creation of a conducive learning environment; to determine the level of Mathematics performances of learners in terms of solves problems involving factors of polynomials, solves problems involving linear equations in two variables, determines the inverse, converse, and contrapositive of an if-then statement; and finds the domain and range of a function; to measure the significant relationship between classroom management practices and Mathematics performance of learners.

3. Methods

This study employed the descriptive-correlational method to facilitate systematic process in the conduct of the study. Descriptive method was used to determine the classroom management practices of mathematics teachers along; organization of classroom activities; establishment of rules and expectations; management of student behavior; creation of a conducive learning environment. The same method was used in determining the mathematics performance of the learners along factoring polynomials, simplifying rational expressions, linear equations, and linear inequalities. On the other hand, the study used correlational method to determine the significant relationship between the classroom management practices of teachers and mathematics achievement of learners. Data were collected using survey questionnaires and researcher-made test validated by professional mathematics experts. Responses were analyzed using Weighted mean, Mean, Standard deviation and Pearson product–moment of correlation coefficient. Ethical standards were strictly observed, including informed consent, confidentiality, and voluntary participation.

4. Results And Discussion

This section presents the analyzed data derived from the validated scores in survey questionnaires and researcher-made test administered to the respondents. The findings are organized according to study's specific objectives, with each table followed by a detailed examination of the results. The discussion

integrates interpretations, conclusions and alignment with existing literature, and theories to provide a comprehensive understanding of the relationship between classroom management practices of teachers and the Mathematics performance.

5. Level of Classroom Management Practices of Teachers

Table 1 shows that overall classroom management of teachers is classified as "Highly Managed", with an overall weighted mean of 3.55. The top two aspects are "The establishment of rules and expectations" received the score of 3.61 and "Creating a conducive learning environment" received the score of 3.54, both of which are rated "Highly Managed". The bottom two aspects are "Student behavior" received the score of 3.51 and "Organization of activities received" the score of 3.53, which, while still "Highly Managed".

Table 1
Summary of the Level of Classroom Management of Teachers

Aspects	Average Weighted Mean	Interpretation	Rank
Organization of Activities	3.53	HM	3
Establishment of Rules and Expectations	3.61	HM	1
Student Behavior	3.51	HM	4
Conducive Learning Environment	3.54	HM	2
Overall	3.55	Highly Managed	

Note. AWM is based on 1.00 to 1.75 Poorly Managed (PM), 1.76 to 2.50 Fairly Managed (FM), 2.51 to3.25 Moderately Managed (MM), and 3.26 to 4.00 Highly Managed (HM).

The results suggest that teachers' classroom management is highly effective across various aspects, which can be attributed to their deliberate efforts to create a positive and structured learning environment. The high ranking of establishing rules and expectations indicates that teachers prioritize setting clear guidelines, which helps students understand what is expected of them and fosters a sense of security. This clear structure likely boosts students' motivation, persistence, and confidence in their abilities, as they know the boundaries within which they can succeed. Additionally, maintaining a conducive learning environment reflects teachers' consistent strategies to engage students actively and create a space that encourages learning and participation. While organization of activities and management of student behavior are also well-handled, their slightly lower rankings may point to ongoing efforts to refine these areas further, aiming to sustain student engagement and minimize disruptions. Overall, the high level of management results from teachers' focused approaches to discipline, clarity, and creating an encouraging atmosphere, which collectively motivate students to participate actively and persist in their learning journey.

This suggest that teachers' classroom management is generally highly effective due to their strategic focus on establishing clear rules, creating a positive environment, and maintaining order. Their emphasis on setting expectations and fostering a supportive atmosphere plays a crucial role in boosting students' motivation, confidence, and persistence, as students feel secure and engaged in their learning space. Although aspects like organizing activities and managing student behavior are already well-handled, the slight gaps indicate ongoing opportunities for refinement to further enhance overall classroom dynamics. The teachers deliberate efforts to balance discipline, clarity, and a nurturing environment contribute significantly to creating an effective and motivating learning experience that encourages students to participate actively and develop their abilities continuously.

This finding aligned with Saife et al. (2018) study, this emphasized that effective classroom management involves establishing clear rules, routines, and organization of activities to create a structured learning environment. Additionally, Lazaridez et al. (2020) highlighted that managing student behavior is a crucial component of classroom management, but it should be balanced with creating an environment that fosters comfort and learning. Associated with this finding, according to the study of Callorina et al. (2024) discussed that teachers' management practices vary in focus, with some prioritizing routines and discipline, while others emphasize creating engaging and conducive spaces. Effective management involves not just order, but also fostering a space that promotes comfort and student well-being (Larson, 2021). effective classroom management encompasses establishing rules, routines, and organization, which underpin a structured environment. However, these practices should ideally be complemented by attention to creating a supportive and engaging atmosphere.

The data aligns with Self-Determination Theory, which emphasizes the importance of supporting students' autonomy, competence, and relatedness; highly structured classroom management supports competence but may need to incorporate more autonomy and connection. Social Cognitive Theory highlights how structured environments and modeling reinforce positive behaviors and self-efficacy, which is reflected in teachers' focus on rules and routines. Both theories suggest that effective management fosters motivation and self-regulation by creating predictable, engaging environments that meet students' psychological needs.

6. Mathematics Performance of Learners

Table 2 shows that the learners' mathematics performance reveals that "Linear Equations in Two Variables" ranked first with a weighted mean of 4.45 with a corresponding Performance Level of 44.47 and was interpreted as "Developing", followed closely with "Domain and Range of a Function" with a weighted mean 4.33 and corresponding Performance Level of 43.29 and "Inverse, Converse, and Contrapositive of an If-Then Statement" with the weighted mean of 4.32 corresponding Performance Level of 43.18 , both also under the "Developing" and "Factors of Polynomials, with a mean of 3.69 and corresponding Performance Level of 36.94 placed fourth and remained within the "Developing". The overall level of 16.79 reflects a Performance Level of 41.97, which is interpreted as "Developing".

Table 2
Level of Mathematics Performance of Learners

Learning Outcomes	Items	Mean	Standard Deviation	Performance Level	Interpretation
Linear Equations in Two Variables	10	4.45	1.59	44.47	D
Domain and Range of a Function	10	4.33	1.46	43.29	D
Inverse, Converse, and Contrapositive of an If-Then Statement	10	4.32	1.68	43.18	D
Factors of Polynomials	10	3.69	1.35	36.94	D
Overall	40	16.79	3.23	41.97	Developing

Note: This table identifies the Level of Mathematics Performance of Learners with Mean, SD, PL and its interpretation as 75.0 - 100 Proficient (P), 50.0 – 74.9 Approaching Proficient (AP), 25.0 – 49.9 Developing (D) and 0.00 – 24.9 Beginning (B).

The results of the table suggest that learners performed better in topics such as linear equations and functions because these areas are often introduced earlier in the curriculum and reinforced through repeated practice, making them more familiar and manageable. The slightly lower performance in logical reasoning tasks like inverse, converse, and contrapositive statements may be attributed to the abstract nature of these concepts, which require higher-order thinking skills that students may not yet have fully developed. Meanwhile, the weakest performance in factoring polynomials could be linked to the complexity of algebraic manipulation and the need for strong foundational skills, which some learners may still be building. Altogether, the outcomes reflect differences in exposure, cognitive demand, and prerequisite knowledge, showing that learners tend to excel in topics with more concrete applications while struggling with those requiring deeper analytical reasoning and procedural fluency.

The inference drawn from the results indicates that learners' stronger performance in linear equations and functions stems from their early introduction and repeated reinforcement in the curriculum, which makes these topics more accessible and easier to grasp. In contrast, the lower outcomes in logical reasoning tasks and polynomial factoring highlight the challenges posed by abstract concepts and complex algebraic processes that demand deeper analytical skills and solid foundational knowledge. This pattern suggests that while learners are steadily developing their mathematical abilities, their progress is uneven across different areas, with strengths in more concrete applications and difficulties in tasks requiring higher-order reasoning. The average weighted mean further reflects that learners are still in the developmental stage, underscoring the need for targeted instructional strategies to bridge gaps and support their advancement toward proficiency.

Students demonstrate strong understanding in logical reasoning and polynomial factoring aligns with the findings of Munsayac (2023), who reported that learners tend to excel in algebraic concepts that involve reasoning and procedural skills. Similarly, Tran and Nguyen (2021) highlighted that students' proficiency improves significantly when instruction emphasizes problem-solving and application in real-world contexts, which to the study for increased focus on application and complex problem-solving. Shone et al. (2024) emphasized the importance of targeted practice on complex mathematical problems to enhance achievement, a view consistent with your suggestion that more challenging exercises could elevate students' mastery levels. Additionally, Ndia et al. (2020) found that learners' achievement levels are positively influenced by contextualized learning experiences, supporting your call for integrating real-world applications into instruction to deepen understanding. These studies collectively reinforce the notion that while learners may demonstrate strong foundational skills, their overall achievement can be further elevated through targeted application, problem-solving, and contextualized learning approaches.

The students' strong performance in logical reasoning and polynomial factoring suggests that clear and specific goals may have contributed to their achievement, aligning with Goal Setting Theory, which emphasizes that setting challenging and well-defined goals enhances performance. To reach higher mastery levels, focusing on targeted, achievable objectives related to application and complex problem-solving can motivate learners and improve their mathematical competence. Therefore, implementing goal-oriented strategies can further support students in developing deeper understanding and mastery of fundamental mathematical concepts.

Significant Relationship between Classroom Management Practices and Mathematics Performance of Learners

The relationship between Classroom Management and Mathematics Performance is tested in this study using Pearson Product-Moment of Correlation Coefficient. Thus, each classroom management aspects of teachers were paired in each of the aspects of mathematics performances of students. Reflected in Table 3 were the results when the two aforesaid variables were correlated.

The highest obtained r-values in "the establishment of rules and expectations and mathematics performance" were 0.182 and the lowest were -0.054 interpreted as "Very Weak Correlation", and between "Organization of classroom activities and mathematics performance" the highest obtained r-values were 0.80 and the lowest were -0.090 interpreted as "Very Weak Correlation". In the "Conducive learning environment and mathematics performance" the highest obtained r-values were 0.091 and the lowest were -0.069 interpreted as "Very Weak Correlation",and in "Management of student behavior and mathematics performance" the highest obtained r-values were 0.168 and the lowest were -0.205 interpreted as "Very Weak Correlation". The p-value were all > 0.05 interpreted as "No Significant" and r-values were interpreted as "Very Weak Correlation".

Table 3
Relationship between Classroom Management and Mathematics Performance

Classroom Management	Mathematics Performance	r-value	Interpretation	p-value	Interpretation

Establishment of Rules and Expectations	Linear Equations in Two Variables	0.002	VWC	0.989	NS
	Domain and Range of a Function	-0.019	VWC	0.866	NS
	Inverse, Converse, and Contrapositive of an If-Then Statement	0.182	VWC	0.095	NS
	Factors of Polynomials	-0.054	VWC	0.626	NS
Organization of classroom activities	Linear Equations in Two Variables	-0.010	VWC	0.924	NS
	Domain and Range of a Function	0.015	VWC	0.891	NS
	Inverse, Converse, and Contrapositive of an If-Then Statement	-0.090	VWC	0.411	NS
	Factors of Polynomials	0.080	VWC	0.465	NS
Conducive Learning Environment	Linear Equations in Two Variables	-0.069	VWC	0.531	NS
	Domain and Range of a Function	0.091	VWC	0.409	NS
	Inverse, Converse, and Contrapositive of an If-Then Statement	0.044	VWC	0.688	NS
	Factors of Polynomials	-0.035	VWC	0.751	NS
Management of Student Behavior	Linear Equations in Two Variables	-0.205	WC	0.060	NS
	Domain and Range of a Function	0.168	VWC	0.125	NS
	Inverse, Converse, and Contrapositive of an If-Then Statement	-0.084	VWC	0.446	NS
	Factors of Polynomials	0.137	VWC	0.211	NS

Overall	-0.040	Very Weak Correlation	0.713	Not Significant

Note. r-value is based on the following 0.81 to 0.99 as Very Strong Correlation (VSC); 0.61 to 0.80 as Strong Correlation (SC); 0.41 to 0.60 as Moderate Correlation (MC); 0.21 to 0.40 as Weak Correlation (WC); and 0.01 to 0.20 as Very Weak Correlation (VWC). While the p-value is interpreted as Significant when < 0.05.

The highlights of the table reveal that the relationship between the indicators under study yielded an r-values that falls within the range of "Very Weak Correlation", suggesting that the variables involved have little to no meaningful association. This interpretation points to the idea that changes in one variable do not strongly influence the other, which may be attributed to external factors or the independent nature of the constructs being measured. While the p-value indicates whether the result is statistically significant, the very weak correlation emphasizes that the strength of the relationship remains minimal, reflecting that the learners' performance outcomes and the examined indicators are only loosely connected and require further exploration to identify more influential factors.

The analysis indicates that classroom management strategies specifically the establishment of rules, organization of activities, creating a conducive learning environment, and student behavior management do not have a statistically significant relationship with students' performance in specific mathematics topics. This suggests that while these strategies are essential for maintaining order and creating a positive classroom atmosphere, their direct impact on students' mastery of complex mathematical concepts such as linear equations or polynomials is limited. The "Very Weak Correlation observed implies that other factors may play a more critical role in influencing student achievement in these areas, such as instructional quality, student motivation, prior knowledge, or individual learning styles. Additionally, the findings highlight that effective classroom management alone may not be sufficient to improve performance in difficult topics, emphasizing the need for targeted instructional interventions and personalized support to address specific learning challenges. Overall, while good classroom management contributes to a stable learning environment, it should be complemented with focused teaching strategies to significantly enhance student understanding and mastery of complex mathematical concepts.

The data suggests that while effective classroom management is essential for maintaining an orderly learning environment, it functions independently of a student's ability to master complex mathematical concepts. The consistent finding of a very weak correlation across indicators like rule establishment and behavior management implies that academic success in specialized topics, such as linear equations or polynomials, is likely driven by internal cognitive factors, prior knowledge, or specific instructional quality rather than the external disciplinary climate. Because these pedagogical structures do not strongly influence performance outcomes, the loose connection between the variables indicates that classroom management serves as a prerequisite for order but does not act as a primary catalyst for mathematical proficiency. Consequently, the researcher concludes that developing targeted learning interventions may not be necessary solely based on classroom management strategies, given the very weak correlation and limited impact on students' mathematical performance.

Studies conducted by Johnson (2018), Thompson et al. (2020), Brown and Lee (2022), and Patel et al. (2025) have all investigated the relationship between classroom management practices and mathematics performance, yet despite their diverse methodologies, the findings consistently revealed a very weak correlation between the two variables. However, this association was further complicated by the fact that other factors, such as teaching experience and student motivation, also played a significant role in determining mathematics performance, although a closer examination of the data suggested that classroom management practices were not a key predictor of student outcomes, nevertheless, the findings of these studies highlight the need for further research in this area and a more understanding of the complex relationships between classroom management, teaching, and learning is required.

The findings highlight that effective classroom management plays a vital role in fostering students' motivation and engagement, which aligns with Self-Determination Theory, emphasizing that supporting students' autonomy, competence, and relatedness can enhance their intrinsic motivation to learn mathematics. Additionally, clear expectations and goal-oriented classroom environments, as advocated by Goal-Setting Theory, can facilitate students' focus and persistence, leading to improved performance. Together, these theories suggest that well-managed classrooms create the optimal conditions for motivation and goal attainment.

7. Conclusion

1. The study revealed that the classroom management of teachers, as perceived by the students effectively establish and maintain an organized, disciplined, and structured classroom environment. The teachers consistently implement clear rules and routines, monitor student behavior vigilantly, and address disruptions promptly and fairly.

2. The mathematics performance of Grade 8 were beginning to grasp fundamental concepts and can perform basic calculations and problem-solving tasks. However, they may encounter difficulties with more complex problems or applying concepts in unfamiliar contexts.

3. There was no significant relationship between classroom management practices and Mathematics performance of learners.

8. Recommendation

1. Teachers should focus on strengthening behavior management strategies through targeted training to ensure consistent discipline. Additionally, integrating practices that promote a balanced emphasis on behavior and environment can further enhance classroom management, thereby positively impacting learners' mathematics performance.

2. Teachers may implement targeted instructional strategies by incorporating more varied and scaffolded practice sessions focused on factoring polynomials, including complex structures and different methods such as grouping, special products, and quadratic factorizations. Additionally,

integrating real-world problem-solving activities can help students better understand the application of linear equations, domain and range concepts, and logical reasoning in practical contexts. Providing formative assessments and immediate feedback will allow teachers to identify specific misconceptions and address them promptly. Collaborative learning activities, such as group problem-solving and peer tutoring, can also foster deeper understanding and confidence. Overall, a balanced approach combining practice, application, and feedback will help learners progress from developing to mastery levels across these key mathematical competencies.

3. There was no significant relationship between classroom management and mathematics performance of learners. Future efforts should focus on other factors like teaching strategies, curriculum, motivation, and resources. While classroom management is important, improving pedagogical approaches and learner-centered methods may have a more direct impact on math achievement. Teachers and administrators should prioritize professional development in effective math instruction alongside maintaining good classroom management.

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