

Teachers' lived experiences in Mathematics classroom management: A focus on routines, instructional processes, and behavioral engagement

Pia Angeli M. Rosaldo
Western Colleges, Inc.
Corresponding Author email: rosaldo.pia19@gmail.com

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Abstract

Aim: This study explored the lived experiences of teachers in managing Mathematics classrooms, focusing on classroom routines, instructional processes, and behavioral management.

Methodology: A qualitative phenomenological approach was used in this study to capture the intricacies of teachers' experiences. Purposive sampling was used to select participants, and in-depth interviews were conducted to collect the data. Data were analyzed using Braun and Clarke's six-phase thematic analysis.

Results: Six themes were revealed: Attendance Tracking Methods; Dealing with Late Students; Smooth Handling Requests to Leave; Materials Distribution; Warning and Consequences; Communication and Documentation. These themes suggest that teachers benefit from a well-structured, clear, and organized system of policies, routines, and communication.

Conclusion: Effective management of Mathematics classrooms, as this study concludes, is a result of the combination of organized routines, clear behavioral policies, efficient instructional systems, and robust communication systems. It is evident from the findings that teachers use a combination of structured and flexible systems, making the classroom environment more organized, the learning process more engaging, and more productive.

Keywords: *classroom management, mathematics education, lived experiences, teacher strategies, behavioral management*

INTRODUCTION

Mathematics education is essential in developing analytical, technical, and logical reasoning skills. It provides learners with the ability to understand patterns, relationships, and numerical concepts that are crucial in both academic and real-life contexts. Mathematics fosters critical thinking, decision-making, and systematic problem-solving (Salami & Spangenberg, 2024). In an increasingly data-driven world, mathematical competence has become a fundamental skill necessary for academic success and future employment (Ekeh & Venketsamy, 2023).

Despite its importance, teaching Mathematics remains a challenging task globally. The abstract nature of the subject, combined with the diversity of learners' abilities, makes instruction complex (Gilmore, 2023). Effective Mathematics teaching extends beyond content delivery and includes managing classroom interactions, motivating learners, and creating a supportive learning environment. It requires teachers to structure meaningful activities, facilitate discussions, and address misconceptions while maintaining student engagement (Frommelt et al., 2021). The interactive and problem-solving nature of Mathematics further complicates classroom management.

Teachers commonly face challenges such as student disengagement, mathematics anxiety, and differences in prior knowledge (Ranmechai & Poonputta, 2023). Negative learning experiences often lead to reduced interest and participation, while anxiety can hinder performance. Variations in foundational knowledge also make it difficult to maintain an appropriate instructional pace (Chirimana et al., 2023). These challenges highlight the importance of understanding how teachers manage Mathematics classrooms and adapt to diverse learner needs.

In the Philippine context, these challenges are further shaped by systemic conditions within the education system. Studies reveal a persistent issue in achieving high-quality mathematics education, with many students

exhibiting low mastery of mathematical concepts and poor performance on national and international achievement tests (Abay & Clores, 2022). The Department of Education promotes learner-centered approaches under the K to 12 curriculum, emphasizing critical thinking and contextualized learning. However, national and international assessments such as the Programme for International Student Assessment have shown that many Filipino students perform below expected proficiency levels in Mathematics (Luzano, 2025). Contributing factors include large class sizes, limited resources, and diverse learner backgrounds, which make classroom management and differentiated instruction more demanding for teachers.

At the local level, particularly in the Schools Division of Cavite, these realities are reflected in the day-to-day experiences of teachers. Managing Mathematics classrooms requires balancing curriculum demands, student engagement, and behavioral concerns while ensuring meaningful learning. Teachers' lived experiences offer valuable insights into effective practices and challenges encountered in real classroom settings. These experiences also emphasize the importance of integrating structured routines and digital tools to enhance organization, feedback, and engagement. This study aims to investigate the specific pedagogical strategies employed by mathematics teachers in the Schools Division of Cavite to address these multifaceted challenges, particularly focusing on how classroom social environments and instructional delivery impact student engagement and achievement in mathematics (Gutierrez & Doronio, 2024; Pillero et al., 2026).

This study aims to explore the lived experiences of teachers in managing Mathematics classrooms. While previous research has largely relied on quantitative approaches focusing on measurable outcomes, such methods often overlook the contextual and experiential aspects of teaching. By adopting a qualitative approach, this study seeks to capture the complexity of teachers' decision-making, emotional dynamics, and adaptive strategies. In doing so, it contributes to a more comprehensive and context-sensitive understanding of classroom management in Mathematics.

Review of Related Literature and Studies

Mathematics Classroom Management

Hofman (2022) stressed that classroom management is a pivotal element of teaching and involves the techniques, structures, and procedures that develop a teaching and learning environment that meets the needs of students and the curriculum. A classroom in which students have a clear understanding of the expectations and can operate within those parameters while minimizing disruptions and distractions, provides a greater opportunity for learning to occur (Akobi et al., 2022). Numerous studies have shown that the ability of a teacher to manage a classroom is a contributor to students becoming interested in a subject, performing better academically and producing a more positive environment within a classroom (Angelo et al., 2023; Khuntia & Sahoo, 2025). In teaching mathematics, the management of a classroom becomes more complex and demanding, due to the level of abstraction involved in the subject as well as the cognitive load required. Panaoura (2024), described mathematics as a subject that required students to undertake complex reasoning and include multiple steps, with a high level of cognitive demand, and a high level of tenacity and perseverance.

Prediger et al. (2022) noted that research has shown that a key element in the success of teaching mathematics is the level of engagement of the students. Bakar et al. (2021) described engagement as the willingness of students to actively participate in learning, interact with the material or subject, and to sustain their efforts in the learning process. A common characteristic of students is a perception of mathematics as a difficult and intimidating subject which invariably leads to anxiety, and more importantly to the habit of avoidance. This perception may obstruct their meaningful engagement with the lessons (Güner & Çermik, 2022). Teachers' contributions toward students' perceptions of Mathematics are significant as they may create an environment that is supportive and is inclusive of all learners. Constructive feedback, recognition of participation, and encouragement may foster confidence and mitigate anxiety (Hwang & Son, 2021).

Adaptive and Resilient Teaching in Diverse Mathematics Classrooms

Evidence suggests that one of the most crucial strategies in the heterogeneous mathematics classroom is the implementation of differentiated instruction (Chirimbana et al., 2023). Due to the wide range of prior knowledge, skills, and particular learning preferences that students possess, varying approaches must be used by teachers to be flexible within their practice. This is done through various modifications of the content, the process, and the associated learning activities of the individual. Positive learning outcomes are mostly associated with teachers who modify their instruction to address the range of students' differing ability and varying preferences in learning (Musasa, 2024). It has also been noted that teaching mathematics classrooms involves emotional labour for the teacher (ERDAL et al., 2022). Apart

from content delivery, teachers support students in their emotional and psychological journeys. Mathematics is frequently a source of frustration, confusion, and lack of confidence for many students (Moleko, 2021). It can be particularly difficult to manage these feelings and keep a classroom disciplined and on track while also assisting students in grasping the underlying fundamentals of complicated issues.

Some researchers have pointed out that teaching practitioners must continuously get instructions on how to enhance classroom management skills (Bjerke & Xenofontos, 2023; Hettinger et al., 2021). Besides adopting the most recent knowledge and innovative approaches to teaching, they also acquire various techniques for dealing with heterogeneous classrooms. The impact of a teacher's professional development program geared toward student engagement, differentiated instruction, and emotional resilience is significant (Juma, 2024). Such programs allow teachers to consider the impact of their work and to draw from the experiences of their colleagues.

Synthesis

Reviewed studies consistently highlight key factors in teaching Mathematics, including student engagement, differentiated instruction, and the influence of emotional and psychological variables on learning. While prior research provides substantial insights into effective teaching techniques and classroom management strategies, these studies are largely grounded in quantitative designs that emphasize outcomes and observable practices, with limited attention to the subjective, lived experiences of teachers themselves. As a result, a critical research gap exists in understanding how teachers personally navigate the complex interplay of academic demands, student behavior, and emotional dynamics within Mathematics classrooms. The literature suggests that effective classroom managers are not only pedagogically competent but also emotionally and mentally responsive, capable of maintaining a positive learning environment while addressing diverse student needs and disruptions. However, there remains insufficient qualitative evidence that captures how these competencies are developed, experienced, and sustained in real classroom contexts. To address this gap, the present study adopts a qualitative approach that foregrounds teachers' lived experiences, allowing for an in-depth exploration of their decision-making processes, coping mechanisms, and adaptive strategies.

Theoretical Framework

This study is anchored on Behaviorism Theory. Behaviorism explains how behavior is shaped through reinforcement, consequences, and observable responses. In this study, teachers apply behaviorist principles using rewards, penalties, warnings, and documentation to manage student behavior. Strategies such as linking attendance to academic incentives, implementing tiered disciplinary actions, and maintaining communication with parents reflect the application of reinforcement and control mechanisms to influence student conduct.

Conceptual Framework

The conceptual framework centers on teachers' lived experiences in three key domains: (1) classroom routines and administrative procedures, (2) instructional processes and resource management, and (3) behavioral management and student engagement. These domains represent areas where teachers apply strategies such as monitoring attendance, managing tardiness, organizing instructional materials, and addressing student behavior using reinforcement mechanisms like rewards, warnings, and consequences.

Within this framework, these management practices are not treated as variables that produce measurable outcomes, but as contextualized experiences that reflect teachers' decision-making processes, challenges, and adaptive strategies. The framework highlights how teachers navigate the complexities of Mathematics classrooms, particularly in balancing instructional demands with behavioral management. It also acknowledges that these experiences are shaped by classroom realities, student diversity, and the structured nature of Mathematics as a subject.

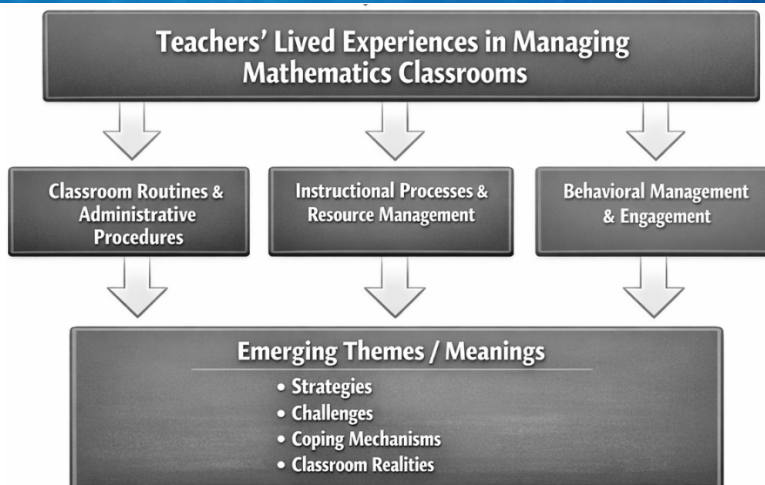


Figure 1. Research Paradigm

Statement of the Problem

The effective management of mathematics classrooms is a crucial component of successful teaching and learning. Teachers are responsible not only for delivering mathematical content but also for establishing routines, managing instructional processes, and addressing student behavior in ways that sustain engagement and maximize instructional time. In mathematics classrooms, these responsibilities become more complex due to varying student abilities, diverse learning needs, and the abstract nature of mathematical concepts.

Teachers frequently manage multiple classroom tasks simultaneously, including monitoring attendance, regulating student movement, distributing instructional materials, and addressing behavioral concerns that may disrupt learning. These classroom management practices play an essential role in maintaining an organized learning environment and supporting students' active participation in mathematical activities.

Despite the importance of classroom management in mathematics education, limited research has explored the lived experiences of teachers in managing the daily routines, instructional procedures, and behavioral dynamics of mathematics classrooms. Understanding teachers' experiences can provide valuable insights into practical strategies that support effective classroom organization, student engagement, and instructional continuity. Therefore, this study seeks to explore the lived experiences of teachers in managing key aspects of the mathematics classroom, particularly classroom routines, instructional processes, and behavioral engagement. Through examining these experiences, the study aims to contribute to a deeper understanding of classroom management practices that support effective mathematics teaching and learning.

Research Objectives

General Objective

To explore the lived experiences of teachers in managing mathematics classrooms, particularly in relation to classroom routines, instructional processes, and behavioral engagement.

Specific Objectives

1. To describe the lived experiences of teachers in managing classroom routines and administrative procedures in mathematics classrooms, particularly in monitoring attendance and addressing late students.
2. To examine the lived experiences of teachers in managing instructional processes and instructional resources in mathematics classrooms, particularly in the distribution and collection of learning materials.
3. To analyze the lived experiences of teachers in managing behavioral situations and sustaining classroom engagement in mathematics classrooms, particularly in addressing student misbehavior and maintaining productive classroom interactions.

Research Questions

1. How do teachers describe their lived experiences in managing classroom routines and administrative procedures in mathematics classrooms, particularly in monitoring attendance and addressing late students?
2. How do teachers describe their lived experiences in managing instructional processes and instructional resources in mathematics classrooms, particularly in distributing and collecting instructional materials?
3. How do teachers describe their lived experiences in managing behavioral situations and sustaining classroom engagement in mathematics classrooms?

METHODS

Research Design

This study employed a qualitative phenomenological approach to capture the lived experiences of teachers in managing Mathematics classrooms. Given the goal of this study, phenomenology is appropriate as it seeks to explore and describe the essence of participants' experiences, focusing on how individuals perceive, interpret, and make meaning of a particular phenomenon. Through this approach, the study aims to uncover the common structures and meanings embedded in teachers' experiences, particularly in relation to classroom routines, instructional processes, and behavioral management.

Population and Sampling

Based on the type of data required to answer the study's purpose, a meticulous approach to participant selection was undertaken.

Sampling Technique. Participants were selected using purposive sampling to ensure that those involved in the study had direct and substantial experience in managing Mathematics classrooms. A total of 10 teachers from public secondary schools in the Schools Division of Cavite were included in the study. These participants were selected to ensure that they possess relevant experiences within the educational context being examined. This sampling method is the most appropriate, as it enables the researcher to select participants with the most relevant experience who can provide additional details regarding the phenomenon being studied.

Participants. Participants were further selected based on specific selection criteria to emphasize the importance and the quality of the data collected. Participants were required to have a minimum of three (3) years of teaching experience where they taught and experienced the nuances of both the delivery of instruction and the management of a classroom.

Instruments

The main instrument in this study was a semi-structured interview designed to elicit detailed accounts of teachers' lived experiences in managing Mathematics classrooms. The interview guide consisted of open-ended questions aligned with the objectives of the study, allowing participants to express their views, experiences, and insights in depth. To ensure the validity and clarity of the instrument, the interview guide underwent a systematic validation process involving three expert validators in the field of education and qualitative research. These experts evaluated the questions in terms of relevance, clarity, and alignment with the research objectives, and provided recommendations for refinement. Revisions were made based on their feedback to enhance the coherence and focus of the instrument. Additionally, a pilot interview was conducted with a participant who met the inclusion criteria but was not part of the actual study to assess the clarity, sequencing, and flow of the questions. Feedback from both the expert validation and pilot testing was incorporated to finalize the interview guide, ensuring that it effectively captured the intended data for the study.

Data Collection

The researcher established rapport with the participants by fostering a comfortable and trusting environment to minimize anxiety and encourage openness during the interview process. Interviews were conducted at venues and times convenient to the participants, typically within their respective public secondary schools in the Schools Division of Cavite, to ensure a familiar and secure setting. Each interview lasted approximately 30 to 60 minutes, allowing sufficient time for participants to share detailed and meaningful accounts of their experiences. Data collection was carried out over a defined period of several weeks to ensure adequate scheduling and participation. With the informed

consent of the participants, all interviews were audio-recorded to ensure accuracy, and the collected data were transcribed verbatim to facilitate thorough and systematic analysis.

Treatment of Data

The data were analyzed using Braun and Clarke six-phase thematic analysis framework, starting with data familiarization, the repeated reading of the transcripts, and the synthesizing of the participants' responses. From there, the initial coding was conducted based on the noteworthy elements that the data presented and their relevance to the research questions. These codes were classified into likely themes that were reviewed and adjusted to ensure coherence and consistency. The themes were then defined and titled in such a way that captured the meaning of the participants' experiences. The author then presented the findings in a comprehensive narrative describing the data's identified patterns and meanings.

Ethical Considerations

Participants were made aware of the study's objectives and were provided with an informed consent form to ensure voluntary participation. They were informed that their identities would remain confidential and that the information they provided would be used exclusively for research purposes. Participants were also given the right to withdraw from the study at any time without any consequences. Prior to data collection, formal approval and permission were secured from the participating public secondary schools and the Schools Division Office to conduct the study within the educational setting. All data and information gathered were carefully collected, stored, and processed with strict adherence to confidentiality protocols to ensure the privacy and integrity of the participants.

RESULTS and DISCUSSION

This section presents the analysis and interpretation of the data gathered from the informants. The findings are organized into emerging themes, each carefully interpreted with corresponding implications discussed. The presentation of topics follows the sequence outlined in the statement of the problem to ensure alignment with the research objectives. This structured approach allows for a clear integration of participants' narratives with relevant literature, enhancing the depth and coherence of the analysis.

1. Lived experiences in managing classroom routines and administrative procedures

Themes

Attendance Tracking Methods
Dealing with Late Students

1.1 Attendance Tracking Methods

This theme describes how teachers implement systematic and efficient approaches in monitoring student attendance as part of daily classroom routines. A sample transcription is shown below:

R1: "I have an iPad that as soon as possible, I mark tardy/absent. It is kept separately and just set to attendance."

It reveals that the teachers are using innovative practices to integrate technology into their classroom routines to capture attendance. Using a dedicated device for attendance captures the immediacy, precision, and order as it allows teachers to capture the presence of students quickly and without breaking the flow of their teaching.

It exhibits that teachers are being purposeful with streamlining non-instructional tasks to enable them to spend increased time on instructional activities (Mondal & Mondal, 2023). In addition, it reinforces the presence of a system to control and track participation in a consistent manner and over a prolonged period, minimizing the odds of a system failing. Furthermore, the presence of technology demonstrates the teachers' flexibility and openness to using technology to enhance the productivity of their classroom. With the digital system in place to capture attendance, teachers can enhance their classroom order and instructional momentum. Moreover, they can enhance the overall structure of the classroom atmosphere and, as a result, they are able to improve the management of their classroom in Mathematics. These findings also suggest the need for teacher education programs to integrate practical training on classroom management strategies, including the use of structured routines and behavior management techniques, to better prepare future teachers for real classroom challenges.

1.2. Dealing with Late Students

This theme explains how teachers establish structured policies to manage student tardiness and promote accountability. A sample transcription is shown below:

R3: "I mark them tardy. Students with complete attendance and no tardies all 6 weeks will be given a 100 as a test grade. Minus 5 points for every tardy and absence."

This emphasizes the structured policy teachers' use regarding student tardiness and the disciplining of responsibility they control in the classroom. The policy of mixing rewards with punitive measures demonstrates balance and order in the control of behavior, as each student is motivated while simultaneously answerable to the control of their behavior. Teaching the students to use their time wisely by providing economic incentives for use of time in learning, teachers acknowledge the value of punctuality and the positive student behaviors to be developed (Chen, 2023).

Demonstrating a positive control of the classroom, this policy emphasizes the communication of the expectations to the students and the use of the policies to control and reinforce (Khanbashi, 2024). Moreover, the policy of evaluating students academically while considering their past behavior demonstrates the understanding by the teachers of the relationship of behavior and learning. Teaching students to control their behavior while also helping them to develop an internal control system of responsibility, order and discipline will aid in the creation of a productive environment in the classroom setting for the Mathematical learning in students. For curriculum planners, these findings highlight the importance of integrating structured behavioral expectations and classroom management components into the Mathematics curriculum to promote both academic engagement and positive student conduct.

2. Lived experiences in managing instructional processes and resource handling

Themes

*Smooth Handling Requests to Leave
Materials Distribution*

2.1 Smooth Handling Requests to Leave

This theme presents how teachers regulate student movement during instructional time to minimize disruptions. A sample transcription is shown below:

R5: "Students are given 3 restroom passes every 6 weeks. They may use them as they wish."

Teachers apply systems to student mobility during classes to maintain flow of instruction. The allocation of restroom passes as an interruption minimization technique shows consideration for personal needs, while also prioritizing instructional work. Setting these guidelines shows teachers' ability to moderate mobility and gives students control. This control fosters responsibility and self-regulation (Moon & Lee, 2023).

In anticipation of potential interruptions, teachers develop systems to address these compliantly rather than reactively. Such practices maintain focus and instructional efficiency. The maximally instructed utilization of time also reflects teachers' efforts to maintain control in mathematics classes. For educational policy makers, this underlines the need to develop policies that support effective time management practices, provide adequate instructional time, and promote classroom management frameworks that enhance both teaching efficiency and student learning outcomes.

2.2. Materials Distribution

This theme highlights how teachers establish organized routines for handling instructional materials efficiently. A sample transcription is shown below:

R4: "Students are to pick up materials on the designated table as soon as they enter the room."

This demonstrates that teachers create clear patterns that create a division of roles that guide students in handling instructional materials in the classroom. Materials collection and distribution systems help teachers assess flow and transitions to make better instructional choices and allocate more time to teaching and to the development

of instructional activities. Developing a routine materials management system does create a role for students to help keep things organized.

Defined systems for the distribution of instructional materials establishes a workspace within Groves framework that demonstrates a safe and organized learning environment where the teacher and/or the aide's instructions are clearly defined to them (Golubtchik, 2024). Materials collection and distribution systems that also enables student roles in instructional systems, further defines and optimizes activities within the framework to promote both student and teacher engagement within the learning system.

3. Lived experiences in managing behavioral situations and classroom engagement

Themes

Warning and Consequences
Communication and Documentation

3.1 Warning and Consequences

This theme describes how teachers apply structured disciplinary approaches to manage student behavior. A sample transcription is shown below:

R6: "I give them warning. Minor infractions mean calling parents. Major infractions will be zero tolerance on first offense."

The findings indicate that teachers in the classroom adopt and implement a tiered and systematic model of discipline when managing student misconduct. The tiered use of warnings and other more serious consequences illustrates the existence of a model system that teachers can describe minor infractions in relation to major ones, enabling proportional and relevant responses.

This system enables teachers to level the playing field and address misconduct pre-emptively (Shala et al., 2025). The minor infractions that require parental involvement signal a joint school and home effort to positively channel a student's behavior and impart responsibility beyond the classroom (Ndlovu et al., 2023). On the other hand, major infractions invite the imposition of disciplinary measures that protect the order and purpose of the instructional setting. It is a direct demonstration of a teacher's interest and effort to maintain disciplinary balance in the system and promote positive engagement in the instructional process.

3.2. Communication and Documentation

This theme emphasizes the role of systematic monitoring and parent communication in sustaining classroom discipline. A sample transcription is shown below:

R7: "I document everything on a notebook and email the parents."

The importance of communication and documentation to achieve effective classroom control and student accountability is highlighted by this finding. Teacher documentation of student behavior enables record keeping, as well as the collection of future defense evidence, and assists with the decision-making processes related to behavior issues. This type of organizational and professional documentation allows the teacher to control the behavior issues and provide the appropriate intervention to behavior patterns.

Additionally, ongoing communication with parents enhances the collaborations of the adjustments of student behavior between the school and the home (Ndlovu et al., 2023). Documentation of behavior issues and communication with parents promotes the parent- teacher alliance by keeping parents involved and informed about the issues being addressed with their children (Wildmon et al., 2024). In sum, documentation, communication, and monitoring are the most important components of maintaining student behavior, creating discipline, and providing a positive mathematics classroom environment.

Conclusions

Findings of the study indicate that teachers' lived experiences in managing mathematics classrooms are characterized by structured routines, proactive behavioral strategies, and organized instructional systems. Teachers demonstrate a strong emphasis on maintaining classroom order and maximizing instructional time through the use of clear procedures for attendance monitoring, classroom movement, material distribution, and behavioral management.

The study also reveals that teachers employ systematic disciplinary approaches and consistent communication with parents to promote accountability and support student behavioral development. These practices reflect the importance of organization, consistency, and professional judgment in maintaining productive learning environments.

The findings contribute to educational practice by highlighting practical classroom management strategies that support effective mathematics teaching and learning. The study further provides insights that may inform teacher professional development programs, instructional planning, and school-level policies aimed at strengthening classroom management and student engagement in mathematics education.

Recommendations

In light of the findings of this study, several recommendations may be considered to support effective classroom management in mathematics education.

Schools may encourage the institutionalization of structured systems that support organization, consistency, and efficiency in classroom routines and instructional procedures. Teachers may also be encouraged to adopt technology-assisted tools for administrative tasks such as attendance monitoring to improve efficiency and maximize instructional time.

Educational institutions may provide continuous professional development programs that strengthen teachers' competencies in classroom organization, behavioral management, and instructional efficiency. Such training may help teachers develop effective strategies for maintaining productive learning environments in mathematics classrooms.

School leaders may also strengthen collaboration between teachers and parents to ensure consistent monitoring and support of student behavior both inside and outside the classroom. Establishing clear communication channels may promote shared responsibility for student discipline and engagement.

Finally, teachers may be supported in maintaining systematic documentation practices to guide decision-making and intervention strategies related to student behavior. These practices may contribute to the development of well-managed, engaging, and productive mathematics classrooms that enhance both teaching effectiveness and student learning outcomes.

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