

Classroom Management Experiences Through the Lens of Non-Education Graduate Mathematics Instructors

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Abstract. This phenomenological research focuses on the classroom management of non-education graduate mathematics instructors in Ilocos Sur Polytechnic State College (ISPSC). The work applied transcendental phenomenological research design and purposive sampling to choose five participants with teaching experience in classroom management ranging from one to three years. Semi-structured interviews were used to elicit in-depth perspectives, and thematic analysis indicated three main themes. The three areas of significance include (1) the area of classroom management difficulties, (2) the area of classroom management approaches, and (3) the area of professional development. The study reveals the challenges educators face in their classrooms concerning the micro level of interactions, including how to address diverse student behaviors emerging from sociocultural and technological contexts. In addition, the emphasis is placed on the participants' approaches to addressing these problems and their constant demand for relevant professional learning to enhance classroom management expertise. This study enhanced our appreciation of the difficulties of teacher learning in higher education, especially those with no educational background. It points out that much attention should be given to offering them the requisite equipment and training to preserve the joyful learning atmosphere.

Keywords: Classroom challenges; Classroom management; Non-education mathematics instructors.

1.0 Introduction

In the Philippines, many mathematics instructors at Higher Education Institutions (HEIs) graduate from non-educational schools like engineering or related disciplines. Despite their undeniable technical proficiency, their experiences bring to light significant difficulties, especially in classroom management. This tendency is noticeable in state colleges and universities like Ilocos Sur Polytechnic State College (ISPSC), where those with engineering backgrounds and those in other specialized fields get teaching assignments to meet social demand for education and growth. However, these instructors often have issues like not attending school and knowing how to deal with students and handle classroom practice.

Other problems of non-education graduate instructors in HEIs, including the ISPSC, are in handling large and multicultural classes, especially in dealing with freshmen students because they are more directional and require more structure. Bayani and Guhao (2017) mentioned that non-education graduates cannot control student behavior and participation or facilitate the distribution of lessons since they are not trained in classroom management. This is worse in first-year classes where students come from high school and have to transition to a new academic landscape and responsibility, which makes managing student behavior in the classroom a real challenge for instructors who may not have a professional background in education.

Kin et al. (2022) have identified that classroom' diversity in terms of cultural, linguistic, and socioeconomic diversity are extra challenges that non-education graduates experience in the Philippines. In Ilocos Sur, exceptionally, because students' backgrounds may vary, these aspects challenge the class conduct management of instructors unfamiliar with how to employ differentiated instructions. This suggests that particular class conduct strategies are imperative, particularly assuming freshmen students may leave a deficiency related to self-organizing within a university environment. The requirement for successful classroom management tactics is further emphasized by Darling-Hammond et al. (2020), who claim that continual professional development is vital for boosting teaching efficacy and student engagement.

Unfortunately, the COVID-19 pandemic turned education into hybrid and online learning, highlighting non-education graduates' digital management deficiencies, as Malgapo and Ancheta's (2020) research demonstrated. Lack of personal interaction and direction has compounded challenges in managing students, especially concerning discipline during online lessons. Smartphone gaming appears often in online learning scenarios and is still present after the transition to partially physical classrooms. Due to the generally low exposure of the non-education graduates at ISPSC to classroom management frameworks, they are likely to entirely manage these disruptions appropriately.

Some research has been done to address non-education graduates' classroom management problems in tertiary institutions. However, the experience of these instructors, especially in the Philippines, has not been explored, mainly in the rural state colleges and universities, including the ISPSC. Most existing research entails broad teaching processes rather than classroom management in various first-year instruction-based courses. This study intends to analyze the classroom management experiences of non-education graduate mathematics instructors at Ilocos Sur Polytechnic State College (ISPSC) to identify their challenges, their applying techniques, and their professional development requirements. By addressing these concerns, the research hopes to contribute to the knowledge of effective teaching techniques in higher education and provide insights for improving classroom management training for non-education graduates.

This phenomenological study highlights the requirement for specialized professional development programs for non-education graduate mathematics instructors at ISPSC. The participants' experiences indicate a notable deficiency in their capacity to manage classroom behavior efficiently, especially regarding technological distractions and insufficient formal training in pedagogical methods. Garet et al. (2021) assert that targeted professional development can improve instructors' self-efficacy in student behavior management, which is essential for creating a supportive learning environment. This study emphasizes the challenges instructors encounter and stresses the imperative for organized training programs that provide them with the requisite skills and strategies to manage classroom complexities effectively. Meeting these needs is essential for enhancing educational outcomes and guaranteeing that all students can participate meaningfully in their learning experiences.

2.0 Methodology

2.1 Research Design

The researchers employed a transcendental phenomenological research method. Transcendental phenomenology aims to elaborate on the formal features and configurations of experiences without analyzing or redesigning them (AI and the LinkedIn community, 2023). Phenomenological research is fundamentally the research of the phenomenon or the world in its naive, untheorized, and pre-reflective immediacy. In an attempt to understand the phenomenon of the everydayness of the extraordinary, phenomenology asks questions such as: "What is it like?" and "How was it for the individuals and groups of people, the phenomenon?" (Alase, 2017). A 'participant-

orientated' approach will enable the participants to make their presentations and tell their stories as they were willing and able to without prejudice or bias. Based on the transcendental phenomenological research methodology, the researcher explored teacher participants' existential-phenomenological perspectives of approaches to classroom management. Speziale and Carpenter (2007) agree that phenomenology is meant to hire specific phenomena or the look of things as experience.

2.2 Research Participants

The study initially included ten non-education graduates who teach mathematics at a state institution but was reduced to five because of the saturation principle. The saturation principle was applied, indicating that enough data had been collected to investigate the research phenomena adequately. The participants were chosen based on the following inclusion-exclusion criteria: they had to be non-education graduates (i.e., have a degree in a field other than education, such as allied courses); they had to have at least one to three years of classroom management experience; and they could be full-time or part-time instructors willing to share their personal experiences and insights about classroom management in interviews. However, instructors with an education degree were eliminated to focus on non-education graduates, instructors with more than three years of teaching experience, and instructors who refused to engage in interviews.

2.3 Research Instrument

The researchers used a semi-structured interview guide to explore and understand the Instructors' lived experiences. Unlike a structured interview, the interview guide allows for open-ended responses, allowing the researcher to explore further the responses (Bartholomew et al., 2000). To help develop priori codes, the researchers devised interview questions based on the notion of layers of human experience. The researcher creates codes ahead of time while coding qualitative data using a technique known as "prioritization" based on a theoretical framework, an interview question, or prior information (Cumberland & Gosser, 2019). A priori coding allows for more methodical and structured data processing ("Essential Guide," n.d.).

2.4 Data Gathering Procedure

In order to meet the objectives of this study, the researchers conformed to the acceptable semi-structured interview guidelines. A face-to-face interview was undertaken, and the participants had ample chance to answer and narrate their stories; each interview took 30 minutes on average. To ensure all the participants were available, the researchers discussed beforehand the time and the day of the interview. It was shared that at the start of the interview, the researchers read out the purpose of the study, what the study entails, and what the participants are supposed to do. It was established with the concerned human subject and participants to record the meeting to arrive at the consolidation of themes. The interview occurred during the first semester of the school year 2024-2025.

Qualitative data was assessed using thematic analysis, commonly called the assessment of a set of texts, including an interview or transcript, to identify themes and patterns of meaning. Thus, thematic analysis offers excellent freedom in analyzing the data and simplifies the analysis of giant data sets, as Caulfield (2023) observed, which is grouped by themes, according to Pantaleon et al. (2024). First, the researchers built the codes as guidelines to order relevant and methodical data collection. Coding allows as much data as can be gathered to be shrunk to small sizes of meaning. Subsequently, the researchers created topics for the coordinated evolutionary correspondence. The nature of a theme is explained as a pattern that contributes some point of interest or interest worth to the data and the research question. Towards the end of this process, each code culminated in broader themes that captured particular research questions.

The researchers recoded, modified, and created new codes identified in the preliminary themes section. This step involves effecting failing validity by checking the proposed individual themes and whether or not the candidate thematic map has captured the meaning of the analyzed set of data. At this last stage, it is required to review the complete data set to ensure that those themes are acceptable and to encode any residual data within those themes. The next stage is to categorize themes based on their definition in terms of identity and data dimension; the final body of the report is a coherent, logical set containing data extracts augmented with a working narrative.

2.5 Ethical Considerations

In the process of determining the ethical research technique, some factors were taken into consideration. First, the study used informed permission, where participants were explained the aim of the research, their rights, and the probable outcome. Second, participant identification was protected; participants' names and other identifying information were not revealed during this research. Third, there was a case of voluntary participation, which meant that the participants could withdraw from the study if they so wished. Finally, vulnerable people, especially those with psychological disorders, received protection. They were used to protect participants' rights, maintain the study's validity, and demonstrate respect to the participants.

3.0 Results and Discussion

Data gathered from the five (5) participants were thematically analyzed and organized into themes. Three themes emerged: 1) Challenges in Classroom Management, 2) Strategies in Classroom Management, and 3) the Need for Professional Development.

Table 1. Thematic Analysis

Participant	Intelligent Verbatim Transcriptions	Theme
P1	"Students are chitchatting while the discussion is ongoing; some are using cellphones, falling	Challenges in Classroom
	asleep in the classroom, doing homework, and irrelevantly drawing."	Management
P2	"Sometimes, in a class, during a "water break," some students tend to scroll on social media	_
	apps rather than discuss or clarify the solution."	
P3	"Boredom or Inattentiveness."	
P4	"Students being distracted, talking during lessons, and not completing assignments on time."	
P5	"Students sometimes use their phones, and others are talkative in their seats."	
P1	"I always prepare ahead of lessons to minimize uncertainty."	Strategies in Classroom
P2	"I often leave the final answer for them to supply independently."	Management
P3	"Group Work then Group Presentation White Board Activities (Raise your board)."	
P4	"Right from the start, I ensure students understand the rules and consequences."	
P5	"One way to make my class lively and active is to know my students first."	
P1	"I am very willing to undergo training and seminars."	Need for Professional
P3	"I think professional development workshops on classroom management strategies would be	Development
	beneficial for improving my skills."	
P4	"Attending seminars and trainings about effective classroom management would help me	
	improve."	
P5	"I still lack training or knowledge in handling behavioral problems."	

The first theme is challenges in classroom management, which discusses the behavioral issues that disrupt the flow of lessons and make it challenging to maintain a focused learning environment, as experienced by the teacher-participants. The second theme, strategies in classroom management, gives an eye-view of how these teacher-participants address behavioral issues by implementing teaching strategies to get attention and discipline students. The third theme, the need for professional development, emphasizes the importance of ongoing training and professional development to improve their teaching skills and classroom management strategies.

Theme 1. Challenges in Classroom Management

The participants mentioned several difficulties they have while trying to control conduct in the classroom. Some of the challenges mentioned were interference from students, chitchatting, and undesirable behavior such as talking during lessons, carrying cellular phones, and even sleeping during the lesson. For instance, P1 said, "students are chitchatting while the discussion is ongoing; some are using cellphones, falling asleep in the classroom, doing homework, and irrelevantly drawing."

P2 also said, "Sometimes, in a class, during a "water break, "some students tend to scroll on social media apps rather than discuss or clarify the solution."

P5 agreed with this, as he said, "I think the biggest challenge I am facing is to remove that idea from my student that when we talk about Mathematics, it is a hard subject. This is rooted in a negative attitude toward students that leads them to divert their attention outside or do things that are not related to our subject. Students sometimes make use of their phones, and others being talkative in their seats also causes disturbance to other students."

These experiences showed that the concerns about behavioral patterns described by the teacher-participants, including talking, using cellphones, and even sleeping, indicate destructions in the learning process. This cuts down students' participation levels and lowers the overall quality of education delivered to them. Besides, the challenges of maintaining order in class may make instructors stressed and demotivated because their primary task is to keep on correcting misbehavior instead of teaching.

The participants face challenges in managing student conduct and participation during mathematics lessons. P1 echoed, "I am always calling the attention of everyone every time I want the class to keep quiet and stay focused in the discussion, but a few minutes later, babalik na naman sila mga mga inuugali nila. These affect my teaching management because their classmates will be affected as well at higit pa doon, di nila nauunawaan ang lessons."

This sentiment supported P2's observation that "It is hard to manage pupils' attention and their focus when Behavioral problems interrupt the class. This greatly reduces the time I can spend teaching and my ability to give lessons while keeping my audience's interest."

In addition, P4 noted, "Ahm, these behavioral issues disrupt the flow of lessons, making it challenging for me to maintain a focused learning environment and reducing overall teaching effectiveness."

These issues correspond with the observations made by Simonsen et al. (2020), who stressed the importance of acknowledging the students' behavior and the effects of conducting classroom management on learning accomplishment. These participants' difficulties suggest a need for more current strategies to manage children's behavior in classes and keep them on task. In addition, Kauffman et al. (2020) found that disruptive classroom behaviors influenced teachers' ability to deliver their lessons considerably, which inevitably resulted in significant levels of stress and job dissatisfaction. Moreover, in the study with Emmer & Evertson (2021), teachers found managing student behavior to be the most challenging to their profession, which the participants echoed. Unfortunately, some of the teachers indicated feelings of preparedness in handling disruptions in class proactively, indicating that not all teachers are as challenged as shown by Jones et al. (2022). Moreover, while Smith and Brown (2023) observed that some teachers found that getting friendly with students could help to reduce behavioral problems, it can be understood that it does not seem to be an issue at all.

Theme 2. Strategies in Classroom Management

Everyone mentioned different techniques they have come up with for managing disruptive behaviors in the classroom. P4 said, "From the start, I ensure students understand the rules and consequences. Consistency is key. I keep lessons dynamic and interactive. When students are engaged, they are less likely to cause disruptions – getting to know my students, building relationships with them, and highlighting and rewarding good behaviors of students. Sometimes, a little praise can go a long way. I use strategies like seating arrangements, visual cues, and routine structures to minimize disruptions. When disruptions occur, I stay calm, address the issue quietly, and avoid escalating the situation."

Similarly, P3 highlighted group work and presentations to keep students engaged: "group work than group presentation whiteboard activities (raise your board)."

P5 emphasized the importance of knowing students and using humor to create a positive classroom atmosphere: "One way to make my class lively and active is to know my students first. It is also important to apply a sense of humor in discussion like giving "hugot lines" just to make our students feel at ease. Lastly, I believe that students are visual learners, so we need to prepare instructional materials. Since I am teaching mathematics, I need to show the computing process or explain concepts."

The study results reveal that the teacher-participants' strategies – lesson planning and comedy/humor – are consistent with a set of proactive approaches to support the sustained student's attention and minimize disruptions. This meant that the strategies used in the classroom, including group conduct and other interactive lessons, showed how flexibility in approach to addressing student needs and behaviors has to be embraced in classroom management strategies. Evidence for these strategies as all practice specifies that clear behavioral expectations, meaningful activities, and favorable relationships reduce classroom management issues (Marzano, 2019; Simonsen et al., 2020). The participants' trends indicate the growing respect of the reader- or learner-centered and communication approach to education. Marzano et al. (2019) claimed that active and lively teaching-learning

processes can significantly affect the occurrence of disruptive behaviors in class. The findings also reflected the results of Simonsen et al.'s (2020) study, which states that teachers who effectively set up a schedule and rules for behavior would demonstrate fewer behavioral concerns connected with the strategies specified by the research participants. In addition, Lee and Smith (2021) noted that some approaches, including strict discipline, lead to pupils' resistance, which means that not all strategies are effective in different classrooms. Moreover, Thompson (2023) found that while some of the teachers said that they actively used humor to capture learners' attention, others said that it often caused the creation of more instances of disturbance.

Theme 3. Need for Professional Development

Participants expressed a fair amount of concern regarding practical professional development that would enhance their approaches to classroom management. P1 stated, "I am very willing to undergo training and seminars to get some strategies to execute classroom management and enhance my teaching pedagogy."

P3 also pointed out, "I think professional development workshops on classroom management strategies would be beneficial for improving my skills. Collaborating with experienced colleagues for support and sharing best practices could also enhance my effectiveness in managing student behavior."

Similarly, P4 said, "I think that attending seminars and training about effective classroom management would help me improve in managing my classes because, you know, I am not an education graduate."

P5 also said, "I still lack training or knowledge in handling behavioral problems."

The claim on the teacher participants' interest in further professional development shows that improving the strategies to apply when teaching or when handling students is possible and necessary. Instructors from non-teaching fields most need professional development because they may not have been trained in many sound instructional practices and behavior management strategies. This need for professional development demonstrates that, regardless of the background of 'instructors,' continuous training and support can increase their general classroom management and teaching ability. The participants' acknowledgment of gaps in their training needs pinpoints the importance of specific professional development activities to facilitate improvement in their teaching careers. Additionally, Garet et al. (2021) found that teachers with focused professional development had enhanced self-efficacy in managing students' behavior and instructing the relevant courses.

However, Johnson and Lee (2022) indicated that professional development is not helpful in all its interpretations, which confirms that training quality and relevance are vital in influencing the achievement of the program. Meanwhile, this contrasts with the Roberts (2023) study that showed that some of the teachers perceived that they were being flooded with professional development needs that created resistance as opposed to the enhancement of the teaching methodologies.

4.0 Conclusions

Based on the themes demonstrated in the study concerning the classroom management experiences of non-education graduate mathematics instructors, the following conclusions and recommendations can be drawn:

Addressing behavioral issues and promoting student engagement is crucial for enhancing the classroom experience. Effective management strategies that emphasize engagement and clear expectations can reduce disruptive behaviors and improve learning. Continuous professional development is vital for non-education graduate instructors to provide them with the requisite skills and strategies for effective classroom management. It is recommended that educational institutions organize workshops and training sessions centered on classroom management practices designed explicitly for non-education graduate instructors. Such programs could provide practical tools and approaches to boost their teaching efficacy.

Implementing peer mentoring programs in which seasoned educators assist non-education graduates may promote collaboration and knowledge exchange. This method may assist in developing a supportive community that strengthens teaching techniques. It may be suitable for instructors to undergo training on how to incorporate technology to promote student involvement rather than detract from it. This could include ideas for using

educational technology to create interactive and dynamic learning experiences. Institutions can consider creating rules that describe appropriate technology use in the classroom. These principles could assist kids in understanding how to harness technology as a learning tool while limiting distractions. Encouraging a culture of constant learning among professors might be helpful. Institutions might promote continuous education and training, allowing instructors to stay updated on best practices in classroom management and pedagogy.

5.0 Contributions of Authors

Alfred P. Pantaleon- written and edited the research article; Mary Joy J. Rodriguez- edited and enhanced the research article; ZJ G. Villanueva- data analysis of the study, and Avelina C. Visaya- initiated the conduct of the study and supervised the holistic aspect of the research article

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7.0 Conflict of Interests

The researchers do not have any conflict of interest to declare.

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