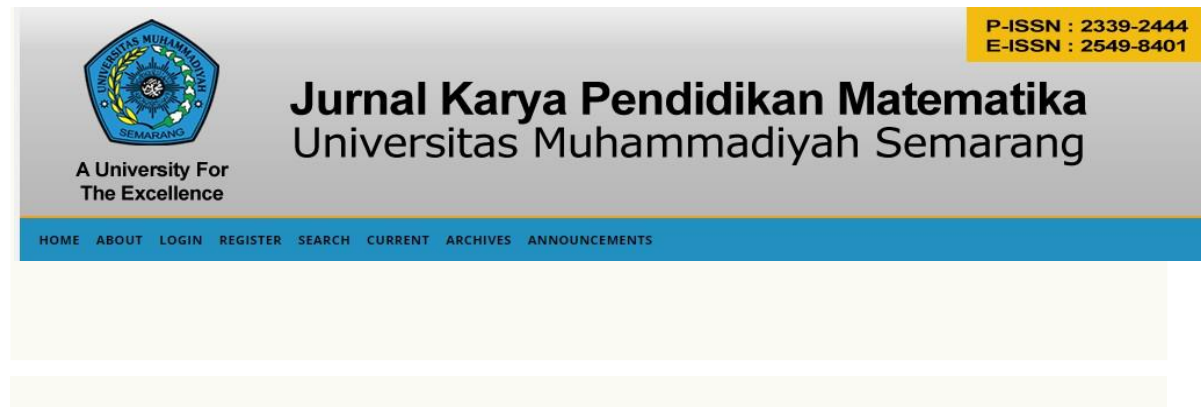




The Lived Experiences of Mathematics Coordinators in Supporting Teacher Development

Salamah B. Indad¹ Nafisah A. Abdalnasser², Sittie Nashebah Guinto³, Nasim B. Sadic⁴, Ainah P. Tanta⁵

¹Institute of Science Education, Mindanao State University, Marawi City, Philippines

²³⁴⁵Graduate Studies Department, Institute of Science Education, Mindanao State University, Marawi City, Philippines

Email: ¹salamah.indad@msumain.edu.ph, ²abdalnasser.na979@msumain.edu.ph,
³guinto.sittienashebah@msumain.edu.ph, ⁴sadic.nasim@msumain.edu.ph,
⁵tanta.ap162@msumain.edu.ph

Abstract

Keyword: Mathematics coordinators, teacher development, instructional leadership, professional development, qualitative research

Recognizing the critical influence of mathematics education on students' academic and professional success, this qualitative phenomenological study explored the lived experiences of Mathematics coordinators in the three divisions of Lanao del Sur, Philippines. With a particular focus on their roles, strategies, challenges and successes in supporting teacher professional development, the research involved semi-structured interviews with eight purposively selected coordinators from public schools in the province. Through thematic analysis of 266 significant statements, 65 formulated meanings emerged and were synthesized into seven key themes.

The findings revealed that Mathematics coordinators serve as instructional leaders who foster collaboration, mentor

teachers, align curricula, and facilitate professional learning communities. Effective strategies reported included blended approaches combining action research, peer coaching, technology integration, and the contextualization of teaching materials. Despite facing persistent challenges—such as limited resources, time constraints, and resistance to change—coordinators exhibited strong resilience, adaptability, and innovation. Their contributions led to improved instructional practices, enhanced teacher confidence, and better student learning outcomes.

These insights underscore the critical role of Mathematics coordinators in shaping educational quality, particularly in culturally diverse and underserved contexts. The study emphasizes the importance of investing in targeted professional development, resource allocation, and institutional support to empower coordinators as agents of instructional improvement. The findings also suggest implications for policy reform and the development of sustainable, context-responsive teacher support systems.

1. INTRODUCTION

In this modern world of technology and sciences, abilities and skills in mathematics is an essential key in understanding disciplines related to science, technology, engineering, and other fields. They say that “without mathematics, there is no science, without science, there is no modern technology and without modern technology, there is no modern society (Sa’ad, Adam. & Sadiq, 2014). And so, mathematics is a subject that covers different aspect of our lives. Thus, its worth goes beyond the four corners of the classroom and the barricades of the school. Moreover, proficiency in this subject is an important factor to succeed in modern society and individuals who do not possess adequate skills in mathematics are at greater risk of unemployment, as well as physical and mental illness (Parsons & Bynner, 2006). Despite its important still it is a common knowledge that mathematics is an unpopular subject among Filipinos and the usual notion that this is a very difficult subject that must be evaded if possible is widely spread (Estonanto and Dio, 2019).

Thus, the need-to-know teachers approach in teaching and planning of the school programs and activities regarding mathematics is highly essential and school mathematics coordinators have the role to investigate on the reality happening inside the classrooms and be able to give support and focus on helping teachers in their endeavor in teaching/handling mathematics.

School mathematics coordinators/leaders are teachers who have a formal responsibility for improving mathematics learning and teaching in the school by providing professional learning for their colleagues, both within the classroom and in planning, assessment and moderation meetings (Downtown, Cheeseman, & Roche, 2022). In this current study, it is concerned to know the lived experiences of school mathematics leaders in supporting teacher’s development in teaching mathematics, planning programs and activities that will capacitate them in improving mathematics’ skills of teachers and students. Mathematics coordinators are considered leader in this subject and so they have a big responsibility in terms of

supporting mathematics teachers to successfully implement activities and programs of the subject.

In the study of Martinovic & Elkord (2018) they concluded that school mathematics leaders play a significant role in improving quality of teaching and learning in their respective schools. Similarly, Downtown, Cheeseman, & Roche (2022) stated that mathematics school leaders play an essential role in mathematics education as teacher-leaders with duties of developing and improving mathematics teaching and learning. So, it simply means that mathematics coordinators need to be goal-oriented in supporting teacher development and must be ready to face challenges of being a mathematics leader. Moreover, Higgins and Bonne (2011) suggested strategies in supporting changes to mathematics school leaders and it includes strong support from the principal, regular classroom observations, consistent on-going professional learning for staff, and sufficient time to entrench new instructional practices.

It was also noted by different authors the importance of ongoing effective, scalable, and sustainable professional development programs for mathematics teachers for the improvement of teaching quality and student's learning (Guskey, 2002, Baker, 2022, Kohen & Borko, 2022).

2. METHOD

Research Design

This study employs a qualitative phenomenological design to explore the lived experiences of Mathematics Coordinators. According to Roller et al. (2015), a qualitative research accepts the complexities of human behavior and thoughts which are ever-changing and influenced by various experiences. Moreover, it was mentioned by Trigwell (2000), that phenomenology explores the varieties of experiences and understanding that people have at a specific moment of

time. Further, this methodological approach was chosen to gain a deeper, authentic, and descriptive viewpoint of the topics being explored (Creswell, 2013). Hence, the nature of this study is qualitative and uses phenomenological approach because it allows the researchers for an in-depth understanding of Mathematics coordinators' challenges, successes, strategies, and impacts on teacher development.

Subject Participants of the Study

The study involved eight (8) Mathematics Coordinators from selected public schools, chosen through purposive sampling. As it was stated by Langdrige (2007) that a researcher may choose to recruit participants who have rich experiences to share. At this point of view, researchers select the participants based on the well-performing schools in Lanao del Sur Divisions and based on their long experiences as mathematics coordinators.

Data Gathering Procedure and Data Analysis

Data were collected through face-to-face and one-on-one interviews to gain participants views in their own voice. As it was explained by Patton (2002), the art of interviewing allows access to information that cannot be observed directly. The study uses a semi-structured interview to gather rich and descriptive data on participants' lived experiences as mathematics coordinators in their respective schools. The researchers have made sure that they have established rapport questions so not to intimidate the participants and they may freely express their thoughts and ideas.

Interviews were audio recorded and transcribed verbatim. Transcripts were then coded manually, and themes were developed. The researchers transcribed the participants answers by listening attentively to the audio recordings expressed by them. It was done several times to have an accurate transcript of their answers. Further, researchers investigated every section or sentence of the participants

response to provide corresponding codes and to be able to come up with a particular theme.

between researchers and participants can pose ethical challenges for researchers because they are personally involved in the different stages of the study (Sanjari et al., 2014). In accordance with this, the researchers formulated specific ethical guidelines that were followed throughout the study. First, the informed consent obtained from all the participants. They were contacted and provided with a relevant information about the study. Moreover, anonymity of the participants was ensured by simply using pseudonym. Voluntary participation of the respondents was also put into consideration with the option to withdraw at any time or to participate in the study without any pressure or coercion. Also, confidentiality was maintained by anonymizing the data and the interview was conducted privately so that it cannot be observed or overheard by others. Lastly, researchers ensured that there was no potential harm to the participants.

3. RESULTS AND DISCUSSION

The researchers employ a qualitative phenomenological design to explore the lived experiences of Mathematics Coordinators where there are seven (7) questions that were asked to the participants individually. The questions were focused on the lived experiences of Mathematics Coordinators in terms of their roles and responsibilities, specific strategies and resources, and their key challenges and successes in supporting teachers' development.

As a result, there are eight (8) Mathematics Coordinators participants from different school in Lanao del Sur that was chosen to participate in the study. Subsequently, a total of 266 significant statements were extracted from the interview transcripts. There were 65 formulated meanings generated from these significant statements, and seven (7)

themes emerged from this study. The theme under Roles and Responsibilities of Mathematics Coordinators is "Collaborative Leadership and Support" with the following subthemes: (a) Curriculum Alignment and Development and b) Teacher Support and Mentoring. Meanwhile, there are three (3) themes under the Strategies and Resources in Mathematics Development; the first theme is "Blended Approaches to Professional and Student Engagement", the second theme is "Data-Driven and Contextualized

Professional Development", and the third theme is "Strategic Use of Localized and Digital Resources".

Subsequently, the three (3) remaining themes are under the Key Challenges and Successes Encountered; the first theme is "Navigating Challenges with Flexibility and Resilience", the second theme is "Empowerment through Mentorship and Performance Recognition", and the third theme is "Continuous Improvement, Collaboration and Adaptability".

As such, the lived experiences of Mathematics Coordinators in Lanao del Sur in supporting teacher development, roles and responsibilities of Mathematics Coordinators, strategies and resources in Mathematics development, and key challenges and successes they encountered will be discussed in the themes below:

Roles and Responsibilities of Mathematics Coordinators

In this part, the collaborative leadership and support under roles and responsibilities of Mathematics Coordinators will be presented with two (2) sub-themes.

Table 1 Major Themes and Subthemes Related to Roles and Responsibilities of Mathematics

Major Themes	Sub-Themes	Codes	Example of Respondent's Answer
Collaborative Leadership and Support	Curriculum Alignment and Development	Collaboration Program	"As a mathematics coordinator in our school my roles and responsibilities are to develop and align the curriculum content that is to meet educational standards and address individual student learning needs." (Respondent B)
		Curriculum Alignment Support	
		Data Analysts/Assessment	
		Data-Driven	
		Instructional Support	
	Teacher Support and Mentoring	PD Facilitation	
		Coaching/Mentorship	"I serve as the mentor of my co-teacher and I collaborate them in planning and implementing programs". (Respondent A)
		Collaboration Implementation	
		Instructional Leaders	"As a Mathematics Coordinator, I build a strong collaborative community." (Respondent D)
		Liaison Role	
		Monitoring & Evaluation	
		Workshop Facilitation	

Table 1 presents the major themes and subthemes that define the multifaceted roles and responsibilities of Mathematics coordinators. The data reveal that coordinators serve as instructional leaders, collaborative facilitators, and agents of curriculum development, highlighting their central role in driving instructional improvement in mathematics education. Math coordinators lead through collaboration—not authority—by mentoring peers, facilitating lesson planning, and encouraging knowledge sharing

Theme 1: Collaborative Leadership and Support

In this theme, it emphasizes the Mathematics coordinators' role in promoting a culture of collaboration among teachers through various programs and initiatives. Magpantay (2019) highlights that coordinators organize meetings and involve teachers in decision-making processes, fostering a collaborative environment. As a result, the two (2) sub-themes below were formulated according to the significant statements that were generated into code, presented in the table above. The codes gathered in the participants' statements are collaboration program, curriculum alignment support, data analysts/assessment, instructional support, and PD facilitation under the sub-theme of "curriculum alignment and development". Sub-theme "Teacher Support and Mentoring" with codes such as coaching/mentorship, collaboration implementation, instructional leaders, workshop facilitation, and monitoring and evaluation was presented.

Collaborative Leadership and Support on Curriculum Alignment and Development

Curriculum Alignment and Development underscores the Mathematics coordinators' engagement in ensuring that mathematics instruction aligns with national standards and is adapted to local contexts. Through sub-themes like "Curriculum Alignment Support and development" the data indicate that coordinators guide teachers in curriculum planning, design, and implementation.

Mathematics Coordinator serves as the key figure in leading, supporting, and improving the teaching and learning of mathematics within a school or district. This role bridges administration, instruction, and curriculum development, ensuring that math education aligns with current standards, best practices, and student needs. This is aligned with the assertions of Cohen-Nissan and Kohen (2022), who advocate for teacher leaders to be deeply involved in guiding curricular and instructional changes to enhance classroom effectiveness.

Collaborative Leadership on Teacher Support and Mentoring

Collaboration implementation suggest that coordinators actively foster teamwork and the sharing of best practices within their departments. Moreover, their function as "Instructional Leaders" and "Liaisons" between school administration and teaching staff further supports effective communication and implementation of instructional goals. These findings are consistent with Basister and Motus (2023), who highlight the significance of distributed leadership in facilitating shared responsibility for instructional leadership across schools.

In addition, the sub-theme "Teacher Support and Mentoring" showcases the coordinators' vital role in developing teacher capacity. Codes such as "Coaching/Mentorship," "PD Facilitation,"

and "Workshop Facilitation" reflect their efforts to build teacher competence through targeted professional development, peer coaching, and ongoing mentoring. This corresponds with Pagbilao, et.al. (2023) view of instructional coaches as leaders who provide personalized support to teachers, helping them analyze instructional practices and improve student outcomes.

The coordinators' involvement in "Monitoring & Evaluation" and data analysis further demonstrates their responsibility in data-driven instructional leadership. They analyze student performance data to identify learning gaps and inform subsequent teaching strategies. This supports the National Council of Teachers of Mathematics (NCTM, 2020) position that mathematics leaders must be skilled in using assessment data to guide instruction and facilitate professional learning.

Overall, the findings reinforce the notion that mathematics coordinators' roles and responsibilities are critical to building instructional capacity, aligning curriculum, fostering a collaborative and reflective teaching culture within schools. Through directive leadership, Mathematics coordinator can build strong and supportive relationships with fellow teachers.

Strategies and Resources in Mathematics Development

In this part, the strategies and resources in mathematics development utilized by the Lanao del Sur Mathematics coordinators will be presented with the themes, namely: " Blended Approaches to Professional and Student Engagement", "Data-Driven and Contextualized Professional Development", and "Strategic Use of Localized and Digital Resources."

Specific Strategies and Resources

Table 2 *Themes ,Codes, and Example of Respondents' Answer Related to Specific Strategies and Resources*

Themes	Codes	Example of Respondent's Answer
Blended Approaches to Professional and Student Engagement	● Action Research ● Collaboration/Cooperation ● Contextualization/Localization ● Feedback and Reflective Practices ● Learning Action Cell (LAC) Sessions ● Peer Coaching ● Regular Feedback And observation ● Support for contests MTAP ● Technology Integration ● Games and Interactive Tools ● Workshops/Seminar	<i>The integration of technology, through maybe educational apps, software and online tools that can provide personalize practice, immediate feedback and engaging learning experiences".</i> Respondent B) <i>"Integrating ICT tools and contextualized materials also strengthens our classroom engagement."</i> (Respondent F)

Table 2 highlights the specific strategies and resources employed by mathematics coordinators to support both professional development and student learning. The findings point to a strong emphasis on blended, reflective and collaborative, approaches that enhance engagement and instructional effectiveness.

Theme 2: Blended Approaches to Professional and Student Engagement

The theme illustrates how mathematics coordinators integrate a variety of methods to address diverse learning and teaching needs. Strategies such as "Action Research," "Peer Coaching,"

"Regular Feedback and Observation," and "Learning Action Cell (LAC) Sessions" reflect a cycle of continuous improvement where teaching practices are regularly examined and refined through collaborative inquiry and reflection. These approaches are strongly aligned with the findings of Darling-Hammond et al. (2017), who emphasize that high-quality professional development is job-embedded, sustained, and collaborative.

Furthermore, codes like "Feedback and Reflective Practices" and "Contextualization and Localization" highlight the coordinators' attention to tailoring content and strategies to fit the specific cultural, social, and academic context of their learners. These practices not only strengthen student understanding but also empower teachers to take ownership of instructional design. This resonates with the findings of Trayco and Esona (2022), who advocate for culturally responsive teaching as a core element of effective pedagogy.

Another notable aspect is the use of technology-integrated resources, including "Games and Interactive Tools," "Online Math Games," and "Educational Apps." These digital tools enhance both teacher engagement and student motivation, making mathematics instruction more dynamic and accessible. According to Akram (2022) demonstrated integrating technology effectively into pedagogy enhances the overall learning experience by connecting content knowledge with innovative teaching methods.

The support provided for co-curricular activities, such as "Contests/MTAP", also reflects the coordinators' efforts to build student confidence and interest in mathematics beyond the classroom. These initiatives create additional opportunities for learners to apply their skills in meaningful and competitive settings, contributing to a positive mathematics culture within the school.

Moreover, the strategies and resources outlined in Table 2 demonstrate the coordinators' multifaceted and proactive approach to fostering teacher development and enhancing student learning outcomes. These practices reinforce the importance of reflective, context-sensitive, and technologically enriched professional development in today's educational landscape.

Implementation of Targeted Professional Development

Table 3 *Themes ,Codes, and Example of Respondents' Answer Related to Implementation of Targeted Professional Development*

Themes	Codes	Example of Respondent's Answer
Data-Driven and Contextualized Professional Development	●Contextualization ●Demonstration ●LAC/Focused Group Sessions ●Needs Assessment ●Peer Observation ●Feedback ●Recognition and Motivation ●Recognition and Motivation ●Re-echo Trainings/Workshops ●Self-Assessment Tools	<i>"I am always updated in trainings and seminars so I love to re-echo or facilitate workshop or training."</i> (Respondent H) <i>"I contextualize the content to fit our learners in Lanao del Sur, especially in multi-cultural and low-resource settings."</i> (Respondent F)

Table 3 focuses on the strategies employed by mathematics coordinators in the implementation of targeted professional development (PD).

Theme 3: Data-Driven and Contextualized Professional Development

The theme reveals how coordinators design PD initiatives that respond to identified needs, are context-specific, and emphasize sustained teacher growth. Codes such as "Needs Assessment," "Contextualization," and "Self-Assessment Tools" highlight how coordinators tailor PD activities to address the unique challenges and capacities of their teaching teams. This aligns with Pagbilao, et.al. (2023) framework which emphasizes that effective professional development begins with an understanding of teachers' learning needs and contextual realities.

Further, the presence of "Demonstration," "Peer Observation," and "Feedback" suggests an emphasis on practical, in-situ learning opportunities that allow teachers to observe and reflect on effective instructional practices. This hands-on, peer-driven model is supported by Huang (2022), who argue that coaching, modeling, and feedback are essential components for translating PD into classroom practice.

The inclusion of "Recognition and Motivation" and "Re-echo Trainings/Workshops" shows that coordinators not only sustain PD efforts through continuous sharing and replication but also reinforce positive teaching behaviors by acknowledging teachers' contributions and successes. These strategies foster a culture of appreciation, accountability, and shared responsibility for improvement.

Resources Used to Make a Difference

Table 4 *Themes ,Codes, and Example of Respondents' Answer Related to Resources Used to Make a Difference*

Themes	Codes	Example of Respondents' Answer
Strategic Use of Localized and Digital Resources	● Math Action Plan ● Collaboration with Math Associations ● Community-Based Materials ● DepEd MELCs ● Educational Apps ● Online Math Games ● Peer Sharing ● Self-Funded ● Technology Integration	<i>"I make sure to localized teaching aids in Maranao context and encourage teachers to use community-based examples."</i> (Respondent C) <i>"I encourage the math teachers to use interactive tools like yong GeoGebra, Math Simulation Games ,Desmos, and a lot more ang daming available online."</i> (Respondent H)

Table 4 highlights the various resources utilized by mathematics coordinators to support instruction and professional growth.

Theme 4: Strategic Use of Localized and Digital Resources

The theme underscores how coordinators combine traditional, contextualized materials with modern digital tools to enhance learning and teaching. Codes such as "Math Action Plan," "DepEd MELCs," and "Community-Based Materials" show a strong alignment with localized, curriculum-guided initiatives that are responsive to both institutional priorities and learner needs. These findings are consistent with Liden et al. (2024), who emphasize the importance of culturally relevant materials in promoting deeper learning.

Additionally, "Educational Apps," "Online Math Games," and "Technology Integration" demonstrate the proactive use of digital resources to create interactive and engaging mathematics instruction. These tools not only enrich student experiences but also empower teachers to innovate within their instructional practices. This reflects the principles model of Chisunum & Nwadiokwu, (2024) which encourages educators to leverage technology to transform teaching and learning.

The resourcefulness of mathematics coordinators is also evident in "Peer Sharing" and "Self-Funded" efforts, indicating a strong sense of initiative and commitment to sustaining quality instruction despite financial or logistical limitations.

Key Challenges and Successes Encountered

In this part, the key challenges and success encountered by the Lanao del Sur Mathematics coordinators will be presented with the themes, namely: "Navigating Challenges with Flexibility and Resilience", "Empowerment through Mentorship and Performance Recognition", and "Continuous Improvement, Collaboration and Adaptability

Key Challenges Encountered by Mathematics Coordinators

Table 5 Themes, Codes, and Example of Respondents' Answer Related to Mathematics Coordinators Challenges

Themes	Codes	Example of Respondent's Answer
Navigating Challenges with Flexibility and Resilience	● Time Constraints ● Resistance to Change ● Lack of Admin/Financial Support ● Access Limitations ● Curriculum /Resource Transitions ● Professional Relationship Dynamics ● Inadequate Opportunities ● Hierarchy and Respect Issues	<i>"To overcome time constraints, we started a quarterly meeting where teachers could gather informally to share ideas, discuss challenges, and explore new resources."</i> (Respondent C) <i>"Science and Math week was a bit stressful for me as we often experiencing lack of resources ...It is very disappointing in my part but the program must go on so I have to provide from my own money."</i> (Respondent G)

Theme 5: Navigating Challenges with Flexibility and Resilience

Table 5 outlines the challenges mathematics coordinators face in their leadership roles. The theme "Navigating Challenges with Flexibility and Resilience" reveals a spectrum of systemic, relational, and operational barriers that impact their effectiveness.

Codes such as "Time Constraints," "Access Limitations," and "Lack of Admin / Financial Support" point to structural challenges that hinder coordinators from fully executing their roles. These challenges resonate with the work of Nacar and Camara (2021), who argues that leadership in education often struggles with limited time and resources, which can compromise change initiatives.

"Resistance to Change" and "Hierarchy and Respect Issues" reflect the interpersonal and cultural obstacles that coordinators must navigate. These findings suggest that coordinators often operate within complex professional dynamics that require not only technical expertise but also emotional intelligence and diplomacy (Chisunum & Nwadiokwu, 2024).

Moreover, "Inadequate Training Opportunities" and "Curriculum and Resource Transition" indicate the ongoing need for sustained support, clear communication, and systemic alignment to facilitate smooth transitions and maintain instructional consistency. Mathematics coordinators often juggle various responsibilities, including curriculum planning, teacher mentoring, and administrative tasks. This multifaceted role can lead to time constraints, making it challenging to provide consistent support to teachers.

Despite time constraints, limited resources, and resistance to change, successes were seen in better teaching quality, student performance, and strengthened teacher collaboration (Cohen-Nissan and Kohen, 2022). Teachers' dedication to student learning, even in the face of adversity, underscores the resilience and commitment prevalent among

educators in such contexts. Understanding challenges and navigating constraints while building collaborative success.

The dynamic nature of education requires coordinators to adapt their support strategies continually. Liden et al. (2024) highlight how mathematics demonstrating the need for flexibility in response to changing circumstances.

Mathematics Coordinators' Achievements in Supporting Teachers' Development

Table 6 Themes, Codes, and Example of Respondents' Answer Related to Mathematics Coordinators Success/Achievement

Themes	Codes	Example of Respondent's Answer
Empowerment through Mentors hip and Performance Recognit ion	● Improved Instruction ● Recognitio n and Awards ● Mentoring /Coaching ● Competiti ve Success ● Student Values ● Teacher Participatio n ● Student Success ● Teacher Growth	"So I think being recognized as one of the award winning coach in our division yearly manifest that there exist a successful mentoring and collaboration in supporting with my co- mathematics teachers". (Respondent A) "Success is when my plan executed smoothly. I believe that, if I Improved teachers, as a coordinator or leading them in a right way, students achievement followed". (Respondent G)

Table 6 captures the successes and achievements of mathematics coordinators in their role of supporting teacher development. These successes

demonstrate the effectiveness of coordinated support and continuous learning.

Theme 6: Empowerment through Mentorship and Performance Recognition

The theme reflects how their leadership translates into tangible improvements in teacher growth and student success. Codes such as "Teacher Growth," "Improved Instruction," "Teacher Participation," and "Mentorship" illustrate the coordinators' success in fostering reflective practice, enhancing instructional quality, and building a community of engaged educators. These outcomes align with Cohen-Nissan and Kohen (2022) who found instructional leadership focused on teacher learning has a strong impact on student achievement.

Moreover, "Recognition and Awards" and "Relationship Building" point to the positive cultural climate established through appreciation and trust. Such outcomes suggest that coordinators are not only instructional leaders but also morale boosters, reinforcing a healthy and motivated school environment. "Student Success," "Competitive Success," and "Student Values" further demonstrate that the coordinators' impact extends beyond teacher development to the broader goal of student excellence, affirming their pivotal role in school improvement efforts.

This finding aligns with the work of Bandura (1997), who posits that confidence in teaching abilities can significantly influence classroom performance and student outcomes. By recognizing accomplishments, coordinators cultivate a positive culture of respect and motivation among faculty, which parallels the recommendations made by Cohen-Nissan and Kohen (2022) regarding the role of appreciation in sustaining effective professional development.

Furthermore, the emphasis on "Coaching" reflects a commitment to building communities of practice, where teachers learn from one another through shared experiences, which is consistent with

the findings of Cakir and Adiguzel (2020) on the importance of communal learning in professional development. The abovementioned responses illustrate how mathematics coordinators effectively empower teachers, leading to a more collaborative and growth-oriented educational environment.

Best Practices for Teachers Support

Table 7 Themes, Codes, and Example of Respondents' Answer Related to Best Practices for Teachers Support

Themes	Codes	Example of Respondent's Answer
Continuous Improvement, Collaboration and Adaptability	● Collaborative PD ● Continuous Support ● Flexibility ● Growth Mindset ● Mentoring Collaboration ● Needs-based ● Peer Support	<i>"These experiences informing best practices as it always shows collaboration and participating ongoing support from the teachers."</i> (Respondent H) <i>"being flexible in every situation and always make an adjustment to create a happy and peaceful life."</i> (Respondent H)

Theme 7: Continuous Improvement, Collaboration, and Adaptability

Table 7 presents the best practices employed by mathematics coordinators to support teachers effectively. The theme emphasizes sustainable and responsive approaches that support long-term teacher development.

Codes like "Collaborative PD," "Mentoring Collaboration," "Continuous Support," and "Peer Support" reinforce the central role of collaboration in teacher learning. These practices are aligned with Gay's (2018) concept of professional

learning communities which promote shared leadership, collective learning, and mutual accountability.

The emphasis on "Needs-Based" support and "Flexibility" suggests that coordinators adapt their methods to the evolving needs and capacities of teachers. This approach resonates with Basister and Motus (2023), who argues that differentiated professional learning—just like differentiated instruction—is key to meaningful educator growth.

Finally, the recurring focus on "Growth Mindset" throughout these practices illustrates the coordinators' commitment to fostering a culture of continuous learning, resilience, and innovation among their teaching staff, which aligns with Canning 2024 (2006) research on the significance of cultivating a growth mindset for academic success. Hence, the findings presented above illustrate that mathematics coordinators play a pivotal role in shaping not only teacher effectiveness but also student learning experiences and outcomes.

Textual Description of Lived Experiences of Mathematics Coordinators

The lived experiences of Mathematics Coordinators in Lanao del Sur reveal a dynamic and multifaceted role grounded in instructional leadership, mentorship, and adaptive collaboration. Through semi-structured interviews, participants consistently expressed their commitment to supporting fellow teachers and improving mathematics instruction despite the challenges posed by shifting curricular demands and resource limitations. Their narratives illustrated how coordinators engage in collaborative planning, curriculum alignment, and mentoring, often taking the lead in organizing professional development activities, facilitating Learning Action Cell (LAC) sessions, and analyzing student assessment data to guide instructional decisions.

Participants described their roles as both challenging and fulfilling. Several coordinators emphasized the importance of curriculum alignment, noting their responsibility in helping teachers transition from the K to 12 Curriculum to the newly implemented MATATAG curriculum. This transition required substantial support, especially for novice teachers, prompting coordinators to provide access to materials, lead workshops, and offer direct instructional coaching. Others highlighted their function as instructional liaisons—bridging school administration and classroom teaching—ensuring that learning goals remain coherent and attainable.

The use of localized and digital resources emerged as a key strategy in contextualizing learning experiences for students in Maranao communities. Coordinators shared efforts in developing Maranao-based teaching aids and integrating technology such as GeoGebra, Desmos, and math games to enhance student engagement and address diverse learning styles. Strategies such as action research, peer coaching, contextualization, and blended learning were frequently cited as effective in responding to both teacher and student needs.

Challenges were a recurring theme in their reflections, including time constraints, limited financial and administrative support, resistance to change among colleagues, and inadequate training opportunities. Some participants expressed frustration over the lack of institutional support, such as delayed release of school funds or poor internet access. Nevertheless, they exhibited resilience—drawing on personal initiative, community collaboration, and professional dedication to fulfill their responsibilities.

Despite these obstacles, the coordinators reported a range of successes. Many expressed fulfillments in witnessing improved teaching practices, heightened student performance, and increased teacher

participation in professional development initiatives. Recognition in coaching competitions, positive feedback from peers, and strengthened relationships within their teaching teams were also considered significant indicators of achievement. They spoke of cultivating a culture of continuous learning, collaboration, and adaptability—qualities they believed essential for sustaining long-term instructional improvement.

Ultimately, the lived experiences of these Mathematics Coordinators point to a role deeply rooted in relational leadership, reflective practice, and a profound sense of responsibility. Their stories reflect a commitment not only to academic outcomes but also to the professional and personal growth of their colleagues. This phenomenological inquiry underscores the human dimension of educational leadership—marked by empathy, adaptability, and shared purpose in the face of complex and evolving educational realities.

4. CONCLUSION

This study set out to explore the lived experiences of mathematics coordinators in Lanao del Sur, Philippines, focusing on their roles in supporting teacher development. Through a qualitative phenomenological approach, we investigated their strategies, challenges, and successes in this critical leadership role. The findings reveal a complex interplay of factors that shape their effectiveness and highlight the importance of providing adequate support and resources to these essential educational leaders.

The data strongly support the multifaceted nature of mathematics coordinators' roles. They are not simply curriculum implementers but active instructional leaders, fostering collaboration, mentoring teachers, analyzing data, and providing ongoing support. Their ability to adapt to the unique

context of Lanao del Sur, integrating both localized and digital resources, is particularly noteworthy, showcasing resourcefulness and adaptability in the face of resource constraints. This collaborative and supportive leadership style is central to their effectiveness.

The findings highlight the effectiveness of blended approaches to professional development, combining traditional methods (lesson study, peer coaching) with technology-integrated resources. The data-driven nature of their approach using assessment data to inform instruction and tailor support is crucial for targeted and effective teacher development. The strategic use of localized and digital resources demonstrates a resourceful and adaptable approach to addressing diverse learning needs and preferences, directly responding to the unique challenges of the context.

Despite significant challenges, including time constraints, resource limitations, resistance to change, and navigating complex hierarchical dynamics, the coordinators demonstrated resilience and adaptability. Their successes in fostering teacher growth, improving instruction, and achieving student success underscore their commitment and the positive impact of their leadership. These successes were often linked to effective mentorship, collaborative learning, and a commitment to continuous improvement.

The findings of this study underscore the critical role of mathematics coordinators in enhancing mathematics education, not only in Lanao del Sur but also in similar contexts globally. Their success hinges on their adaptability as instructional leaders, their effective leveraging of diverse resources, their fostering of collaboration, and their provision of ongoing support to teachers. Investing in these leaders and providing them with the necessary support and resources is essential for improving the quality of mathematics education.

In conclusion, the experiences of mathematics coordinators in Lanao del Sur highlight the need for sustained support, adequate resources, and opportunities for ongoing professional development for these crucial educational leaders. Recognizing the significant impact they have on the educational ecosystem is paramount for improving mathematics teaching and learning and ultimately fostering

REFERENCES

- Aguilar-Santelises, L., Corona-Ortega, M., Cruz-Milan, M, and Guillermina, A. (2015). Keeping Teachers Up-to-Date is Essential to Reach and Maintain a High Quality University Education. *Multidisciplinary Journal for Education, Social and Technological Sciences*, 2(1), 1-14.
- Alajmi, M.N. (2022). The impact of Digital Leadership on Teachers' Technology Integration during COVID -19 Pandemic, in Kuwait. *International Journal of Educational Research*, 112, 101928
- Basister Jr., A. I., & Motus, R. H. (2023). Lived Experiences of Teachers Teaching Intermediate Mathematics in Far Flung Areas. *4th International Conference on Multidisciplinary Industry and Academic Research*, 206-209
- Chisunum, J.I. & Nwadiokwu, C. (2024). Enhancing Student Engagement through Practical Production and Utilization of Instructional Materials in an Educational Technology Class: A multifaceted Approach. *NIU Journal of Educational Research*, 10(2), 81-89

- Cohen-Nissan, O., & Kohen, Z. (2023). Mathematics coordinators as school team PD leaders before and during COVID-19. *Teaching and Teacher Education*, 121, 103921.
- Corcega, J.N.G. and Ching, D.A. (2024). Dimensions of Mentoring, Aspects of Coaching and Teachers' Performance in Public Elementary School. *TWIST*, 19(3), 615-624
- Darling-Hammod, L. (2017). Teacher Education Around the World: What can we Learn from International Practice?. *European Journal of Teacher Education* 40(3), 291-309.
- Deliwe, A. (2024)/ The Importance of learner Management System in Implementing Data-driven Instruction in Higgher Education Institution. *Journal of Digital Humanities Association of Southern Africa*, 5(1).
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, 38(3), 181-199
- Drake, C., & Sherin, M. G. (2006). Practicing change: Curriculum adaptation and teacher narrative in the context of mathematics education reform. *Curriculum Inquiry*, 36(2), 153-187.
- DuFour, R., & Eaker, R. (2009). Professional learning communities at work: Best practices for enhancing student achievement. Solution Tree Press.
- Gay, G. (2018). Culturally responsive teaching: Theory, research, and practice (2nd ed.). Teachers College Press.
- Hamilton, L., Halverson, R., Jackson, S., Mandinach, E., Supovitz, J., & Wayman, J. (2009). Using student achievement data to support instructional decision making. *IES Practice Guide*.
- Johnsen, S.K. (2021). Aligning Curriculum to Standards. Introduction to curriculum design in gifted education, 63-91
- Knight, J. (2007). Instructional coaching: A partnership approach to improving instruction. Corwin Press.
- Kursav, M.N., Pauls, D., Bonfert-Taylor, P., Loeb L., and Ray, L., (2025). Accelerating Change of practice through Trageted Professional Development in Data Science. 1-25
- Kusmawa, A., Rahman, R., Anis, N. and Arifudin O. (2025). The Relationship Between Teacher Involvement in Curriculum Development and Student Learning Outcomes. *International Journal of Educatio Elementaria and Psychologia* 2(1), 1-12
- Lomibao, L. S. (2016). Enhancing mathematics teachers' quality through Lesson Study. *SpringerPlus*, 5(1), 1590.
- Magpantay, T. M., Mangali, G. M., & Dondriano, E. (2019). Role of coordinators as curriculum and instructional managers. *International Journal of Mutidisciplinary Research and Publications* 2(5), 40-47
- Millett, A., & Johnson, D. (2000). The role of the maths coordinator and the

National Numeracy Strategy.
Teacher Development, 4(3), 393–
410.

Nacar, C.J., and Camara, J.S. (2021). Lived
Experiences of Teachers in
Implementing Modular Distance
Learning in the Philippine
Setting. *Isagoge-Journal of
Humanities and Social Sciences*
1(4):29-53

Pagbilao, S.C., Pfeifer, P.A.T.M., Cainguitan,
S.C., Felipe, F.M., Macaling M.L.,
Ramiro, C.R., Samoy, H.F., and
Bautista R.G.(2023).

Building a
Community of Practice in
Sustained Culture of Lesson
Study: The Case of Saguday,
Philippines. *American Journal of
Educational Research* 2023,11(12)

Salamat, S.C. (2016). A Challenge or Not:
Understanding the Lived
Experience of Public Elementary
and Secondary Mathscore
Coordinators in the
Implementation of Web-Based
Math Program (MathScore).
University of Perpetual Help
System Laguna.

Trayco, K.B, and Esona, N.S. (2021). Lived
Experiences of Teachers in
Teaching Contextualized
Mathematics During the New
Normal Education. *Globus An
International Journal of
Management & IT A Referred
Research Journal*. Vol 14/No 1

Zavadsky, H., and Dolejs, A. (2006). Data:
Not Just Another Four –Letter
Word. *Principal Leadership* 7(2),
32-36