

Mathematics Anxiety Among Secondary Public School Teachers in Tagudin District

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Abstract

The study examined the profile and mathematics anxiety of secondary public school teachers in the Tagudin District. The majority of teachers were female, married, and had significant teaching experience. The average class size was found to influence the dynamics of teaching. It revealed that teaching methods and understanding mathematics content were the main sources of anxiety for teachers. Pressures from student performance and administrative expectations also contributed significantly to anxiety. On the other hand, preparation and professional development were found to be lower sources of anxiety. Teachers expressed substantial anxiety in the areas of student motivation and performance, particularly due to concerns about students finding mathematics abstract and not passing. Differences in students' prior knowledge and issues with classroom management were also sources of anxiety. The researcher concluded that mathematics anxiety among teachers is complex and stems from personal competency beliefs and external pressures. They suggested that professional development should target specific anxieties, such as personal competence in mathematics knowledge and access to appropriate resources. They also recommended interventions such as balanced classroom sizes and ongoing in-service training for teachers to alleviate anxiety.

Keywords: Mathematics anxiety, Teacher profiles, Demographic analysis, Teaching experience, Class size, Classroom management, Professional interactions, Confidence in teaching, Alternative teaching methods, Professional development

Introduction

Mathematics anxiety was a significant issue in public secondary schools worldwide, affecting teachers and students alike. In Tagudin District, many secondary school teachers experienced anxiety when teaching mathematics or dealing with mathematical problems. This issue was not isolated to the Philippines; studies in the United States, the United Kingdom, and Australia revealed that mathematics anxiety among secondary school teachers was a global concern (Bural & Poznak, 2006).

Mathematics anxiety was often rooted in personal experiences and societal perceptions. Teachers frequently faced doubts about their ability to teach the subject well, often due to negative experiences with mathematics during their studies. Societal stereotypes also contributed to views of mathematics as a difficult and stressful subject, leading to a loss of interest and poor teaching performance among teachers. Factors contributing to mathematics anxiety among teachers in Tagudin District included inadequate training, socio-economic challenges, and a lack of support and resources. Teachers with insufficient training from the Department of Education often lacked confidence and competence in teaching mathematics. Additionally, the socio-economic status of students played a role, as teachers faced

challenges such as lack of parental support and poverty, increasing the demand to perform well and meet diverse student needs.

Framework of the Study

This study explored mathematics anxiety among secondary public school teachers through psychological, educational, and socio-cultural perspectives. Theories such as emotion regulation, self-efficacy (Bandura, 1977), and the Deficit Theory (Collins, 2012) provided a baseline for understanding and addressing mathematics anxiety. Effective interventions promoted positive self-efficacy beliefs, adaptive coping strategies, and a supportive teaching environment.

Literature Review

The review of literature is an important area of investigation. It enables the researcher to gather up-to-date information about what has been done in the particular area he intends to study. In the words of Best (1977) a brief summary of previous research and the writings of recognized experts provide evidence that the researcher is familiar with that which is still unknown and untested. Since effective research must be based upon past knowledge this step helps to eliminate the duplication of that which has been done and provides useful hypothesis and helpful suggestions for significant investigations.

Teacher Profile

Teachers' demographic characteristics, such as gender, age, marital status, teaching experience, and class level, significantly impacted the experience of mathematics anxiety. These characteristics interacted to influence teachers' self-efficacy, stress levels, and overall confidence in teaching mathematics.

Gender

Studies showed that gender differences played a role in mathematics anxiety, with female teachers often reporting higher levels of anxiety than their male counterparts. This difference might be influenced by societal expectations and stereotypes regarding gender and mathematical ability.

Age and Marital Status

Younger teachers and those who were unmarried might experience higher levels of mathematics anxiety due to less experience and support compared to their older, married counterparts.

Teaching Experience

Teachers with more years of experience generally reported lower levels of anxiety, as they had developed coping strategies and confidence in their teaching abilities over time.

Classroom Size

Larger class sizes could increase teachers' anxiety levels due to the increased demand for classroom management and individual student attention.

Contributing Factors

Several factors contributed to mathematics anxiety among teachers, including:

Personal Experiences: Negative experiences with mathematics during their own education could lead to anxiety.

Professional Pressures: High expectations and performance pressures from administrators and parents could exacerbate anxiety.

Societal Perceptions: Societal views of mathematics as a difficult subject could contribute to teachers' anxiety.

Methods

This study employed a descriptive-correlational research design to investigate the extent and factors contributing to mathematics anxiety among secondary public school teachers in Tagudin District. Data were collected through surveys and interviews with mathematics teachers in the district. The survey included questions on demographic characteristics, teaching experiences, and anxiety levels. Statistical analysis was used to determine the relationship between teachers' profiles and their levels of mathematics anxiety. Correlational techniques identified significant factors contributing to anxiety.

Results and Discussion

The following are the findings of this study:

Profile of Teachers

Table 1 reveals the profile of Mathematics Teachers in Tagudin District.

Table 1. Profile of the Teachers

PROFILE	F	%
A. Sex		
Male	13	40.63
Female	19	59.38
Total	32	100
B. Age		
25 and below	1	3.13
26-30	8	25
31-40	18	56.25
41-50	2	6.25
51-60	3	9.38
61 and above	0	0
Total	32	100
C. Marital Status		
Single	10	31.25
Married	22	68.75
Widow	0	0
Total	32	100
D. Years of Teaching		
5 years and below	9	28.13
6-10 years	11	34.38
11-15 years	5	15.63
16-20 years	3	9.38
21-25 years	1	3.13
26 years and above	3	9.38
Total		100
E. Classroom Size		
20-30 students	13	40.63

31-40 students	15	46.88
41 and above	4	12.50
Total	32	100

Legend: F- frequency %- Percentage

The demographic profile of secondary public school teachers in the Tagudin District reveals a diverse group of educators.

Sex

The majority of the teachers are female, with 59.38% (19 teachers), while male teachers constitute 40.63% (13 teachers). This indicates a higher representation of female teachers in the district's secondary public schools.

Age

In terms of age distribution, most teachers fall within the 31-40 age range, making up 56.25% (18 teachers) of the total. Teachers aged 26-30 years comprise 25% (8 teachers), and those aged 41-50 years account for 6.25% (2 teachers). The 51-60 age group includes 9.38% (3 teachers), while only 3.13% (1 teacher) are 25 years or below. There are no teachers aged 61 and above, indicating a relatively younger teaching workforce.

Marital Status

Regarding marital status, a significant majority of the teachers are married, accounting for 68.75% (22 teachers). Single teachers make up 31.25% (10 teachers), and there are no widowed teachers. This suggests that most teachers in the district have familial responsibilities alongside their professional roles.

Years of Teaching

When it comes to teaching experience, the data shows a balanced distribution across various experience levels. Teachers with 6-10 years of experience represent the largest group at 34.38% (11 teachers). Those with 5 years or below teaching experience constitute 28.13% (9 teachers). Teachers with 11-15 years and 16-20 years of experience account for 15.63% (5 teachers) and 9.38% (3 teachers), respectively. Additionally, 9.38% (3 teachers) have over 26 years of teaching experience, and 3.13% (1 teacher) fall within the 21-25 years range. This indicates a mix of relatively new and highly experienced teachers in the district.

Classroom Size

Regarding classroom sizes, 46.88% (15 teachers) manage classrooms with 31-40 students, making it the most common classroom size. Classrooms with 20-30 students are handled by 40.63% (13 teachers), and only 12.50% (4 teachers) have classrooms with over 41 students. This reflects a moderate classroom size in most cases, which can impact the teaching dynamics and individual attention given to students.

Overall, the profile of secondary public school teachers in Tagudin District shows a predominantly female, relatively young, and experienced workforce, mostly managing moderately sized classrooms and balancing their professional duties with personal responsibilities.

LEVEL OF MATHEMATICS TEACHER ANXIETY

Table 2 reveals the Level of Mathematics Teacher Anxiety in Tagudin District.

Table 2. Level of Mathematics Teacher Anxiety

STATEMENT	MEAN
1. The thought of not being able to motivate students to learn math bothers me	3.44
2. The thought that students find math too abstract concerns me	3.69
3. The thought that students/pupils will not meet curriculum/school targets in math worries me	3.53
4. The thought that students/pupils will not pay attention to what I am teaching in math class worries me	3.72
5. I worry that students/pupils in my math class will fail their assessments	3.72
6. Differences in students'/pupils' prior knowledge worries me when preparing for math lessons	3.31
7. I worry that students/pupils will answer math questions incorrectly	3.28
8. At the end of my math class, I erase the content on the board so that colleagues can't see	2.63
9. I wait for breaks impatiently when I am in math classes	1.88
10. I am afraid to go beyond the content of math textbooks	1.91
11. I avoid talking about mathematics teaching with other teachers outside the classroom	1.94
12. I avoid classroom discussion in case students pose difficult math questions	1.41
13. I get uneasy knowing that the next lesson is mathematics.	1.44
14. I feel nervous when a pre-service/trainee teacher observes my math teaching.	1.94
15. I feel uncomfortable when one of my colleagues comes to my classroom during a math lesson.	2.13
16. I worry that I won't be able to answer a question whilst teaching a math class	1.84
17. Thinking about how to make use of tools/materials that I don't know how to use in the math classroom makes me feel anxious	2.25
18. The thought of using concrete tools (e.g. geometry boards, pattern blocks, tangrams, fraction bars) in math classes worries me	1.75
19. I feel uneasy when students/pupils don't understand mathematical concepts and I have to find/think about alternative methods or strategies to teach them	3.09
Overall Mean	2.57

Mathematics anxiety among secondary public school teachers in Tagudin District can be attributed to several factors, as indicated by the calculated mean scores for various questions. The mean scores reveal specific areas of concern. Teachers reported high levels of anxiety related to questions 4 and 5, both with mean scores of 3.72, indicating significant stress regarding their teaching methods and understanding of mathematics content. Additionally, questions 2 and 19 showed relatively high mean scores of 3.69 and 3.09 respectively, suggesting that teachers feel considerable pressure from student performance and administrative expectations. On the other hand, questions such as 12 and 13, with mean scores of 1.41 and 1.44 respectively, indicate lower anxiety levels concerning their preparation and professional development

opportunities. Overall, these factors combined reflect the multifaceted nature of mathematics anxiety among teachers, encompassing both personal competencies and external pressures.

The extent of mathematics anxiety among secondary public school teachers in the Tagudin District, based on the given data, reveals a notable variation in individual anxiety levels. The mean scores, calculated from responses to multiple questions, range from 1.84 to 4.47, indicating a wide spectrum of anxiety experiences among the teachers. The overall mean score for all respondents is 2.57, which suggests a moderate level of mathematics anxiety on average.

This moderate average masks the diversity in individual responses. Some teachers exhibit significantly higher levels of anxiety, which could potentially impact their teaching effectiveness and their students' learning experiences. Teachers with higher anxiety scores might avoid certain teaching practices, rely heavily on textbooks, or exhibit less enthusiasm and confidence in teaching mathematics. This can, in turn, influence students' attitudes towards mathematics and their performance.

On the other hand, there are teachers who manage their anxiety more effectively, reflected in lower mean scores. These teachers might employ various strategies to cope with their anxiety, such as engaging in continuous professional development, collaborating with colleagues, and employing innovative teaching methods. Their ability to manage anxiety effectively allows them to create a more positive and engaging learning environment for their students.

The variability in anxiety levels suggests that a one-size-fits-all approach to professional development and support may not be effective. Tailored interventions that address the specific needs of teachers with higher anxiety levels are essential. These could include workshops on anxiety management techniques, peer mentoring programs, and providing access to counseling services. Additionally, fostering a supportive school environment where teachers feel comfortable discussing their anxieties and seeking help is crucial. Further research could explore the underlying causes of mathematics anxiety among these teachers, such as previous negative experiences with mathematics, lack of content knowledge, or inadequate teaching resources. Understanding these factors can inform the design of targeted interventions to help teachers overcome their anxiety.

The data indicates a moderate level of mathematics anxiety among secondary public school teachers in the Tagudin District, with significant individual variation. Addressing this issue through tailored support and professional development can enhance teachers' well-being and effectiveness, ultimately benefiting their students' learning experiences in mathematics.

Factors Contributing to Mathematics Anxiety

Table 3 reveals the Factors Contributing to Mathematics Anxiety in Tagudin District.

Table 3. Factors Contributing to Mathematics Anxiety

CATEGORY	STATEMENT	Mean	Weighted Mean
Student Motivation and Performance #1-5	1. The thought of not being able to motivate students to learn math bothers me	3.44	3.62
	2. The thought that students find math too abstract concerns me	3.69	
	3. The thought that students/pupils will not meet curriculum/school targets in math worries me	3.53	

	4. The thought that students/pupils will not pay attention to what I am teaching in math class worries me	3.72	
	5. I worry that students/pupils in my math class will fail their assessments	3.72	
Classroom Management #6-9	6. Differences in students'/pupils' prior knowledge worries me when preparing for math lessons	3.31	2.77
	7. I worry that students/pupils will answer math questions incorrectly	3.28	
	8. At the end of my math class, I erase the content on the board so that colleagues can't see	2.63	
	9. I wait for breaks impatiently when I am in math classes	1.88	
Professional Interactions #11,12,14,15	11. I avoid talking about mathematics teaching with other teachers outside the classroom	1.94	1.85
	12. I avoid classroom discussion in case students pose difficult math questions	1.41	
	14. I feel nervous when a pre-service/trainee teacher observes my math teaching.	1.94	
	15. I feel uncomfortable when one of my colleagues comes to my classroom during a math lesson.	2.13	
Confidence in Teaching #10,13,16	10. I am afraid to go beyond the content of math textbooks	1.91	1.73
	13. I get uneasy knowing that the next lesson is mathematics.	1.44	
	16. I worry that I won't be able to answer a question whilst teaching a math class	1.84	
Use of Teaching Tools #17-18	17. Thinking about how to make use of tools/materials that I don't know how to use in the math classroom makes me feel anxious	2.25	2.00
	18. The thought of using concrete tools (e.g. geometry boards, pattern blocks, tangrams, fraction bars) in math classes worries me	1.75	
Alternative Teaching Methods #19	19. Alternative I feel uneasy when students/pupils don't understand mathematical concepts and I have to find/think about alternative methods or strategies to teach them Strategies	3.09	3.09
Overall Mean			2.57

The analysis of factors contributing to mathematics anxiety among secondary public school teachers in the Tagudin District reveals the following insights:

1. Student Motivation and Performance: With the highest mean score of 3.62, this factor indicates that teachers are significantly anxious about their students' motivation, understanding, and performance in

mathematics. Concerns about students finding math abstract, failing assessments, and not meeting curriculum targets are prominent.

2. **Classroom Management:** This factor has a mean score of 2.77, highlighting worries about differences in students' prior knowledge and behaviors that might disrupt the teaching process. The impatience for breaks during math classes also contributes to this anxiety.
3. **Professional Interactions:** Scoring 1.85, teachers experience anxiety about discussing mathematics teaching with colleagues and being observed during lessons. This suggests a need for a more supportive professional environment.
4. **Confidence in Teaching:** With a mean score of 1.73, this factor reflects teachers' nervousness about being unable to answer questions and managing classroom discussions. The low score indicates relatively less anxiety but still points to a need for building greater confidence.
5. **Use of Teaching Tools:** This factor, with a mean score of 2.00, shows that some anxiety exists around the use of concrete tools and unfamiliar materials in the math classroom. Teachers might benefit from more training in using these tools effectively.
6. **Alternative Teaching Methods:** Scoring 3.09, this factor indicates that teachers feel uneasy when students do not understand mathematical concepts and they have to find alternative methods to teach them. This reflects a significant area where teachers need support in developing versatile teaching strategies.

Overall, the analysis suggests that the primary contributors to mathematics anxiety among teachers are related to student performance and the need for effective alternative teaching methods. Addressing these areas through targeted professional development and support systems can help mitigate these anxieties.

Relationship between the Profile of Teachers and their Mathematics Anxiety

Table 4 reveals the Relationship between the Profile of Teachers and their Mathematics Anxiety scores in Tagudin District.

Table 4 Relationship between the Profile of Teachers and their Mathematics Anxiety

PROFILE	Chi-Square p-value
Sex	0.53
Age Group	0.48
Marital Status	0.77
Years of Teaching	0.29
Classroom Size	0.15

The p-values obtained from the chi-square tests indicate that there is no statistically significant relationship between the teachers' profiles and their mathematics anxiety levels. In other words, the sex, age group, marital status, years of teaching experience, and classroom size of the teachers do not significantly affect their levels of mathematics anxiety.

Sex: The anxiety levels do not differ significantly between male and female teachers. This suggests that both genders experience similar levels of anxiety related to teaching mathematics.

Age Group: The age of the teachers does not have a significant impact on their anxiety levels. Whether the teachers are younger or older, their anxiety levels are relatively similar.

Marital Status: Single and married teachers exhibit similar levels of mathematics anxiety, indicating that marital status does not influence anxiety levels in a significant way.

Years of Teaching: The number of years a teacher has been teaching does not significantly correlate with their anxiety levels. This finding suggests that experience alone does not alleviate or exacerbate mathematics anxiety.

Classroom Size: Although the p-value for classroom size is the lowest among the variables tested (0.15), it still does not indicate a significant relationship. This suggests that the number of students in a classroom does not significantly affect teachers' anxiety levels.

The analysis suggests that demographic and professional profile variables of teachers in the Tagudin District do not have a significant relationship with their mathematics anxiety levels. This indicates that other factors, possibly intrinsic to the individual teacher or related to the school environment and support systems, might play a more critical role in influencing mathematics anxiety. Future research could focus on these other potential factors, such as personal attitudes towards mathematics, professional development opportunities, and school support structures, to better understand and address mathematics anxiety among teachers.

PLAN OF ACTION

Comprehensive Plan to Address Mathematics Anxiety Among Secondary Public School Teachers in the Tagudin District

PROGRAM	OBJECTIVE S	ACTIONS	BUDGET	RESOURCES	TIME FRAME
1. Professional Development Workshops	Develop teacher efficacy in teaching mathematics in terms of confidence and competence.	- Develop, and conduct regularly, professional development workshops on effective mathematics teaching strategies, classroom management, and integration of technology in teaching math. - Invite experienced mathematics educators and psychologists to provide training that uses anxiety management techniques unique	Php 150,000.00	- Training materials - Venue rental - Speakers and trainers fees	Quarterly

		to teaching mathematics. - Conduct hands-on sessions that provide venues for teachers to try new teaching methods in a supportive environment.			
2. Peer Mentoring and Collaboration	Develop a supportive community among teachers to share best practices and reduce anxiety.	-Implement peer mentoring where experienced teachers mentor the new and anxious ones. -Create collaborative teams within the school who can work together in planning lessons, sharing resources, and discussing challenges. -Organize regular, informal meet-ups or discussion groups that focus on teaching mathematics for teachers to share their experiences and gain support from each other.	Php 50,000.00	- Meeting space - Refreshments - Mentorship materials	Monthly
3. Counseling and Support Services	Provide emotional and psychological support to teachers with high levels of anxiety.	- Offer counseling to individual teachers who need assistance in coping with anxiety. - Provide workshops on	Php 150,000.00	- Counseling fees - Workshop materials - Hotline setup and maintenance	Monthly

		<p>managing stress, mindfulness, and relaxation techniques that will help teachers manage anxiety in and out of the classroom.</p> <p>- Make available a confidential hotline or support service for teachers to get the support and advice they need to be happy, healthy, and productive.</p> <p>Integrate spiritual development sessions to promote teacher well-being through meditation, reflection, and optional faith-based counseling.</p>		- Spiritual development resources	
4. Resource Development and Distribution	Provide teachers with high-quality teaching support materials and resources to reduce preparation-induced anxiety.	<p>- Develop and distribute comprehensive teaching guides, lesson plans, and resource materials that are aligned with the curriculum and are user-friendly.</p> <p>- Ensure access to online platforms with a repository of teaching resources,</p>	Php 200,000.00	<p>- Printing and distribution costs</p> <p>- Online platform subscription fees</p>	Semi-Annually

		<p>interactive tools, and lesson planning.</p> <ul style="list-style-type: none"> - Ensure teachers are adequately provided with supplies and the technology needed within their classrooms to teach effectively. <p>Monitoring and Evaluation</p>			
5. Monitoring and Evaluation	<p>Measure the success of the programs and make necessary adjustments.</p>	<ul style="list-style-type: none"> - Organize periodical surveys and feedback sessions from teachers to establish the level of anxiety and the efficiency of the programs. - Use the data to make necessary changes in the professional workshops, mentoring programs, and other support programs. - Keep school administrators and other stakeholders informed about the process and results to ensure continued support and funding for the programs. 	<p>Php 50,000.00</p>	<ul style="list-style-type: none"> - Survey tools - Data analysis software - Reporting tools 	<p>Quarterly</p>

6. Building a Positive School Culture	Create a school climate that fosters well-being and minimizes anxiety.	<ul style="list-style-type: none"> - Promote open communication that lets teachers articulate and open up about problems. - Appreciate and congratulate the success or improvement of teachers to boost morale and confidence. - Implement multi-level efforts to address teacher needs related to well-being, including wellness days, social outings, and team-building programs. 	Php 100,000.00	<ul style="list-style-type: none"> - Event organization costs - Communication tools - Incentives and awards 	Quarterly
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TRAINING DESIGN FOR SECONDARY PUBLIC SCHOOL TEACHERS DEALING WITH MATHEMATICS ANXIETY IN TAGUDIN DISTRICT

I. Rationale

Mathematics anxiety is a pervasive issue among students, but it also affects teachers, particularly those in secondary education. The ability to effectively teach mathematics is hindered when teachers themselves

experience anxiety or lack confidence in their mathematical abilities. Research indicates that mathematics anxiety among teachers negatively impacts instructional quality and student outcomes (Hembree, 1990). The Philippines' Mathematics performance has become more alarming following the devastating effect of the COVID-19 pandemic. The pandemic has caused the largest and worst disruption to education, creating a significant decline in Mathematics skills among Filipinos. A study by Tria (2020) highlighted the negative impact of remote learning on students' mathematics performance due to lack of access to resources and inadequate training for teachers in online pedagogies. The World Bank (2021) reported that the learning poverty in the Philippines could rise due to prolonged school closures, with mathematics being one of the hardest-hit subjects.

In response, teachers should take part in mitigating this problem by addressing their own mathematics anxiety. Teacher professional development is crucial for improving student outcomes (Desimone & Garet, 2015). Effective professional development programs help teachers develop new teaching strategies, understand diverse student needs, and implement curriculum changes effectively (Darling-Hammond et al., 2017).

But this recommended activity could not be achieved without the support of the concerned officials of the department and the willingness of teachers to attend and participate in a training program that could address mathematics anxiety among secondary public school teachers in Tagudin District. With the correct channeling and endorsements, a training design focusing on addressing mathematics anxiety is being proposed to improve the mathematical performance of students in Tagudin District.

II. Objectives

The general objective is to alleviate mathematics anxiety among secondary public school teachers in Tagudin District.

The specific objectives are:

1. Develop coping mechanisms and strategies for managing mathematics anxiety.
2. Create a supportive environment for teachers to share experiences and seek help.
3. Improve teachers' confidence in their mathematical abilities.

III. Course Content

Understanding Mathematics Anxiety: Teachers will learn about the causes and effects of mathematics anxiety, as well as its impact on instructional quality and student outcomes.

Coping Mechanisms and Strategies: Teachers will be introduced to various coping mechanisms and strategies for managing mathematics anxiety, such as relaxation techniques, cognitive restructuring, and seeking support from colleagues.

Building Confidence: Activities and discussions will focus on building teachers' confidence in their mathematical abilities through positive reinforcement and self-efficacy enhancement strategies.

IV. Methodologies

The training program will utilize a combination of lectures, workshops, group discussions, and experiential activities to engage participants and address their specific needs related to mathematics anxiety. Role-playing exercises and case studies will be used to simulate real-life scenarios and encourage active participation. Peer support groups and mentoring programs will be established to provide ongoing support and encouragement to teachers.

V. Training Staff

Training Team

CHRISTY L. LAFUENTE

Teacher II- Mathematics

JUNE C. RACCA Principal IV Tagudin National High School	CHERRY MAY L. HERNANDO Principal III Tagudin Integrated School
CRISTINA A. LACASANDILE Principal III Libtong Integrated School	CARLITO L. DUMO Principal II Pudoc West Integrated School
PACITA M. QUITORIANO, PhD Head Teacher III Ambalayay Integrated School	NIDA C. BARNACHEA Head Teacher III Garitan Integrated School

All resource speakers shall be selected based on their expertise in psychology, counseling, or education, with a focus on addressing mathematics anxiety.

Consultants

Schools Division Superintendent – Joel L. Lopez, CESO V

Mathematics Education Specialist – Nestor G. Villaflor

VI. Participants

Secondary public school teachers in Tagudin District

VII. Venue

The training workshop shall be conducted at Tagudin District, Ilocos Sur.

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VIII. Schedule of Activities

Day	Time	Topic/Activity	Persons Involved
1	8:00-8:30	Registration	Training Staff
	8:31-9:30	Opening and Orientation Program	Training staff, resource speakers, participants
	9.31-10:00	Break	Canteen staff

	10:01-12:00	Understanding Mathematics Anxiety	GERALDINE R. REYES, PhD
	12:01-1:00	Lunch Break	Training staff, resource speaker, participants
	1:01-2:00	Stress Management and Relaxation Techniques	GERALDINE R. REYES, PhD
	2:01-2:30	Workshop & Output Presentation	Participants & Facilitators
	2:31-3:30	Building Mathematical Confidence:	AGNES G. TORRES, EdD
	3:31-3:45	Break	Canteen Staff
	3:46-4:45	Effective Pedagogical Practices	DR. RODOLFO LIGAWAD JR.
	4:45-5:00	Open forum and wrap-up	Facilitator, Speakers and participants
Home Sweet Home			

IX. Budgetary Requirements

To implement the conceptualized training, the below budget estimates are proposed for 60 participants.

Items/Particulars	Estimated Cost
Training Kit (writing pads, ballpen, ID)	Php500.00
Venue/Facilities	Php500.00
Meals (Php 50.00/person @ 10)	Php500.00
Snacks (Php30.00/day@10)	Php300.00
Transportation allowance of speakers	Php1000.00
Certificates of Speakers & Participants	Php500.00
Overhead costs	Php1000.00
Contingencies	Php3,000.00
Total cost	Php8,300.00

This comprehensive plan of action and Training Matrix aims to address the root causes of mathematics anxiety among secondary public school teachers in the Tagudin District by providing professional development, fostering peer support, offering counseling services, integrating spiritual development, distributing resources, monitoring progress, and building a positive school culture. By implementing these strategies, schools can create a supportive environment that empowers teachers, enhances their teaching effectiveness, and ultimately improves student learning outcomes in mathematics.

CONCLUSIONS

The study concluded that mathematics anxiety among secondary public school teachers in Tagudin District was influenced by various personal, professional, and socio-cultural factors. Effective interventions should address these factors to improve teaching practices and student outcomes.

RECOMMENDATIONS

The study recommended implementing tailored professional development programs, creating supportive teaching environments, and promoting collaboration among teachers to reduce mathematics anxiety. Further research should explore additional factors and develop targeted interventions to support mathematics teachers.

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