

Mathematics Teachers' Readiness and Challenges on MATATAG Curriculum: An Embedded Mixed-Method Study

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ABSTRACT

This embedded mixed-methods study assessed the readiness levels and implementation challenges of Grade 7 and 8 Mathematics teachers regarding the MATATAG Curriculum in a selected district within the Division of Valencia City, Bukidnon, for School Year 2025-2026. The study sought to answer three questions: (1) How ready are the teachers? (2) What challenges do they face? and (3) Is there a significant relationship between readiness and challenges?

The study was anchored on Fullan's Theory of Educational Change, the Readiness for Change Model, and Bandura's Social Cognitive Theory 9,15,1. Using an embedded mixed-methods design, data were collected from 30 teachers through a survey with quantitative items and open-ended prompts. Quantitative data were analyzed using mean, standard deviation, and Pearson correlation. Qualitative responses were examined through a targeted explanatory review.

The findings revealed that teachers demonstrated high overall readiness (Mean = 3.62) but also experienced high overall challenges (Mean = 3.67). The highest readiness indicator was motivation (Mean = 4.57), while the lowest were designing problem-solving lessons within class time (Mean = 2.90) and access to instructional materials (Mean = 2.83). The most critical challenge was fast lesson pacing (Mean = 4.40), followed by increased workload (Mean = 4.20) and insufficient materials (Mean = 4.03). A significant, strong negative correlation was found between readiness and challenges ($r = -0.721$, $p = .000$).

Teachers are generally ready but need systemic support in time management and resources. Recommendations include adjusting lesson pacing, reducing non-teaching tasks, providing practical training, and ensuring the timely delivery of instructional materials.

Keywords: MATATAG Curriculum, Teacher readiness, Implementation challenges, Mathematics teachers, Embedded mixed-methods

INTRODUCTION

Curriculum reform is a universal demand driven by the need to align education with the complex demands of the 21st century. The shifts toward competency-based and learner-centered education demand profound pedagogical changes from teachers, especially in mathematics (Fetters et al., 2023; UNESCO, 2021). The success of such reforms depends not only on policy design but also on the teachers' capacity and willingness to implement new practices in their classrooms (Creswell & Plano Clark, 2018). Teacher readiness, encompassing content expertise, instructional competence, and positive attitudes, is widely recognized as the critical driver of educational reform (Darling-Hammond & Hyler, 2020). Conversely, systemic challenges such as insufficient professional development, resource gaps, and resistance to change threaten implementation fidelity (Vongkulluksn et al., 2022).

In the Philippines, the urgency for reform is underscored by the nation's performance in the 2022 PISA, where most Filipino students failed to reach basic proficiency in mathematics (OECD, 2023). In response, the Department of Education rolled out the MATATAG Curriculum, designed to decongest learning standards, strengthen foundational mathematics skills, and cultivate critical reasoning (Department of Education, 2024).

This reform represents a significant pedagogical shift for mathematics teachers, moving from broad coverage of the contents to focused mastery and applied reasoning.

At this early stage of the MATATAG Curriculum's rollout, there is a lack of empirical studies that concurrently diagnose the readiness levels of mathematics teachers and investigate the concrete challenges they encounter. Understanding not just readiness and challenges in isolation, but also the relationships between them, is vital for developing effective interventions.

Thus, this study aimed to assess the readiness levels and identify the implementation challenges of Grade 7 and 8 Mathematics teachers regarding the MATATAG Curriculum in a selected district within the Division of Valencia City, Bukidnon. Using an embedded mixed-methods design, the research prioritized quantitative data to establish baseline readiness levels and used embedded qualitative narratives to provide explanatory depth.

METHODOLOGY

Research Design

This study employed an embedded mixed-methods design (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010). The primary quantitative approach was augmented by simultaneous qualitative data gathering, with merging of findings conducted during the interpretive phase for enhanced understanding (Creswell & Plano Clark, 2018; Feters et al., 2023). This design was particularly suitable as it allowed the primary use of a quantitative survey to measure teachers' readiness levels, quantify implementation challenges, and test the relationship between these variables.

Research Locale

This study took place in a single district within the Division of Valencia City, Bukidnon, focusing on seven public schools. The district included a mix of larger schools accessible in the city and more remote schools. Together, these schools had thirty Grade 7 and 8 mathematics teachers, who were the primary implementers of the MATATAG Curriculum for School Year 2025-2026.

Participants

The participants comprised the complete population of 30 full-time Grade 7 and 8 mathematics teachers from seven public secondary and integrated schools. Participants had to be currently employed as full-time mathematics teachers, formally assigned to teach under the MATATAG Curriculum for at least one complete grading period, and had attended at least the Division-led orientation or training session.

Research Instruments

The primary data collection instrument was a structured survey questionnaire adapted from established readiness frameworks and research on reform obstacles (Creswell & Plano Clark, 2018; Pak et al., 2020; Vakola et al., 2004). The survey consisted of four parts: demographic profile, Teacher Readiness Scale (10 items), Implementation Challenges Scale (10 items), and open-ended narrative prompts. Both scales used a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The Readiness scale yielded a Cronbach's alpha of .960, and the Challenges scale yielded .956, both indicating excellent internal consistency.

Qualitative Analysis Process

In line with the embedded mixed-methods design, the qualitative responses were analyzed using a targeted explanatory review, not full thematic coding. The goal was to extract illustrative statements that would support and explain the quantitative findings.

The researcher transcribed all open-ended responses and organized them by participant code. After multiple readings, relevant statements were selected based on their ability to clarify specific quantitative results. For

instance, comments about motivation were linked to the high mean score for that indicator, while remarks about material shortages helped explain the moderate readiness rating for resource access.

Selected statements were then integrated into the discussion of each research question, providing contextual depth to the statistical findings. This approach ensured that the qualitative data played a supportive role, enriching the quantitative results without becoming an independent thematic analysis.

Data Analysis

Quantitative data were analyzed using mean, standard deviation, and Pearson product-moment correlation. Qualitative responses were examined using the systematic process described above, and illustrative statements were extracted to support and clarify the quantitative findings.

RESULTS AND DISCUSSION

Readiness of Mathematics Teachers

Table 1 presents the level of readiness of Mathematics teachers regarding the MATATAG Curriculum.

Table 1. Level of Teacher Readiness on MATATAG Curriculum

	Mean	SD	Qualitative Description	Interpretation
1. I am motivated to implement the MATATAG curriculum despite implementation challenges.	4.57	0.57	Strongly Agree	Very High Readiness
2. I can translate MATATAG standards into clear and measurable instructional objectives.	3.77	0.86	Agree	High Readiness
3. I use questioning strategies that promote higher-order mathematical thinking under MATATAG.	3.77	0.86	Agree	High Readiness
4. I am confident in selecting teaching strategies that are aligned with MATATAG principles.	3.77	0.82	Agree	High Readiness
5. I am confident in modifying my teaching practices to meet MATATAG requirements.	3.77	0.90	Agree	High Readiness
6. I can clearly explain the MATATAG Mathematics learning standards to my students.	3.67	0.88	Agree	High Readiness
7. I can align MATATAG learning competencies with appropriate assessment tasks.	3.60	0.93	Agree	High Readiness
8. I can adapt MATATAG learning activities to accommodate diverse student abilities.	3.57	0.73	Agree	High Readiness
9. I can design MATATAG-based problem-solving lessons within the prescribed class time.	2.90	0.80	Neutral	Moderate Readiness
10. I have adequate access to MATATAG instructional materials and resources.	2.83	0.95	Neutral	Moderate Readiness
Overall Mean	3.62	0.83	Agree	High Readiness

The data revealed an overall mean score of 3.62, indicating a high level of readiness. The highest-rated indicator was teacher motivation (Mean = 4.57). Teachers demonstrated high readiness in translating standards, using higher-order questioning strategies, selecting aligned teaching strategies, and modifying their practices. However, designing problem-solving lessons within class time (Mean = 2.90) and access to instructional materials (Mean = 2.83) fell under moderate readiness. One teacher shared, "I am confident and prepared to deliver lessons that are clear, relevant, and focused on essential competencies." Another noted, "Being ready means having a clear understanding of the revised learning competencies and being able to translate them into meaningful, student-centered lessons."

These findings align with Caspe and Sarrosa (2025), who emphasized that readiness includes professional competence and practical preparedness. Fullan (2021) explained that successful reform occurs when teachers accept change as meaningful and worthwhile, supporting the very high motivation observed in this study.

However, teachers also acknowledged challenges to their readiness. One admitted, "Limited instructional materials and adjusting to the pacing of lessons sometimes hinder my readiness."

These quotes confirm that while teachers are generally ready, constraints in time and resources remain critical areas that need institutional support."

Challenges of Mathematics Teachers

Table 2 presents the level of challenges experienced by teachers.

Table 2. Level of Teachers' Challenges on the MATATAG Curriculum Implementation

	Mean	SD	Qualitative Description	Interpretation
11. The pacing of MATATAG lessons is too fast for my students' learning needs.	4.40	0.77	Strongly Agree	Very High Challenges
12. Implementing MATATAG has significantly increased my workload.	4.20	0.96	Agree	High Challenges
13. Available MATATAG learning materials are insufficient for effective teaching.	4.03	1.00	Agree	High Challenges
14. Updated MATATAG instructional materials are not provided on time.	4.03	1.07	Agree	High Challenges
15. There is insufficient time allotted for collaborative planning related to MATATAG.	3.77	0.90	Agree	High Challenges
16. MATATAG trainings lack practical, classroom-based strategies.	3.60	0.93	Agree	High Challenges
17. There is a mismatch between MATATAG training content and actual classroom needs.	3.50	0.86	Agree	High Challenges
18. Digital resources needed for MATATAG implementation are difficult to access or use.	3.23	0.94	Neutral	Moderate Challenges
19. I have not received sufficient training to implement the MATATAG curriculum effectively.	3.07	0.98	Neutral	Moderate Challenges
20. Administrative support for MATATAG implementation is inconsistent.	2.87	0.63	Neutral	Moderate Challenges
Overall Mean	3.67	0.90	Agree	High Challenges

The data revealed an overall mean score of 3.67, indicating high challenges. The highest-rated challenge was lesson pacing (Mean = 4.40). Other high challenges included increased workload (Mean = 4.20), insufficient materials (Mean = 4.03), delayed materials (Mean = 4.03), and limited collaborative planning time (Mean = 3.77). One teacher stated, "The most difficult challenge is the fast pacing of MATATAG lessons." Another shared, "Many students still struggle with foundational skills, so it becomes challenging to move forward without leaving some learners behind." One teacher also said, "The increased workload is the hardest because the materials are often late or insufficient." And one admitted, "Even if I understand the curriculum, the lack of tools prevents me from executing it as effectively as I want to."

These results are consistent with Kilag et al. (2024), who reported that MATATAG implementation challenges commonly include workload increases, limited preparation time, and resource shortages. Del Yunting et al. (2025) similarly noted concerns regarding delayed materials and support gaps.

On the other hand, despite these difficulties, some teachers remain resilient. One shared, 'My readiness helps me adjust strategies and stay positive.'

These quotes reinforce that while teachers demonstrate commitment, they need sustained institutional support in resources, time, and professional development.

Relationship Between Readiness and Challenges

Table 3. Relationship Between Mathematics Teachers' Readiness and Challenges in the MATATAG Curriculum Implementation

Variable Pair	r	p-value	Interpretation
Readiness – Challenges	-0.721	.000	Significant negative strong correlation

Note: r is interpreted using Cohen's Scale: -0.3 to +0.3 = Weak Correlation (W), -0.5 to -0.3 or +0.3 to +0.5 = Moderate Correlation (M), -0.9 to -0.5 or +0.5 to +0.9 = Strong Correlation (S), -1.0 to -0.9 or +0.9 to +1.0 = Very Strong (VS)

The results revealed a statistically significant, strong negative correlation between readiness and challenges ($r = -0.721$, $p = .000$). This indicates that as teachers' readiness increases, their experienced challenges tend to decrease. One teacher explained, "My level of readiness helps me adjust strategies and stay positive." Another noted, "My readiness allows me to easily adjust instruction."

In contrast, a teacher with lower perceived readiness admitted, "It makes me feel less prepared because I need to constantly adjust my lessons."

So readiness really acts as a protective factor against challenges. However, its effectiveness depends on contextual conditions such as resource availability, workload, and instructional support.

This finding aligns with Caspe and Sarrosa (2025), who explained that teacher readiness directly influences how effectively educators respond to implementation demands. Fullan (2021) emphasized that teachers who internalize reform initiatives are more likely to experience fewer implementation difficulties.

CONCLUSION

The following conclusions are drawn from the findings:

1. Mathematics teachers in the selected district demonstrated high readiness for the MATATAG Curriculum, particularly in motivation and instructional alignment. However, they struggled with designing problem-solving lessons within class time and lacked sufficient access to instructional materials.
2. Mathematics teachers faced serious challenges, most critically the fast pacing of lessons. Increased workload, insufficient materials, and limited collaborative planning time made implementation harder. These challenges were interconnected and demanded systemic solutions.

3. There was a significant inverse relationship between teacher readiness and implementation challenges. Higher readiness led to fewer difficulties, confirming that strengthening teacher readiness helps reduce implementation barriers.

RECOMMENDATIONS

Based on the findings, the following recommendations are offered:

For Teachers. Teachers may actively participate in LAC sessions, seek peer support, and engage in self-directed learning to strengthen their readiness.

For School Administrators. Administrators may reduce non-teaching tasks, create protected time for collaborative planning, and adjust lesson pacing to match students' learning readiness.

For the Division Office. The Division Office may provide practical training, realistic pacing guides, timely instructional materials, strengthen digital access, and establish a support monitoring system.

For the Department of Education (DepEd). DepEd may allow flexible pacing, deliver materials before the school year starts, provide sustained professional development, and include readiness assessments in monitoring.

For Teacher Education Institutions (TEIs). TEIs may strengthen pre-service training in curriculum adaptation, pacing, and resource development aligned with the MATATAG Curriculum.

For Future Researchers. Future researchers may expand the scope to multiple districts to improve the generalizability of findings. They may also include a larger and more diverse sample, incorporate classroom observations and student outcomes, and conduct longitudinal studies to examine the long-term impact of the MATATAG Curriculum. Additionally, future studies could explore the effectiveness of specific interventions, such as mentoring programs or collaborative planning structures, in reducing implementation challenges and enhancing teacher readiness.

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