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Teachers' Competence and Readiness on the Mathematical Proficiency of Learners in Enhanced K-10 Curriculum: A Mixed Method

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Abstract*—This study examined the influence of teachers' competence and readiness on the mathematical proficiency of learners in Enhanced K-10 Curriculum. Specifically, it determined the level of teachers' competence, readiness, and learners' mathematical proficiency. Then, it assessed whether teachers' competence and readiness significantly influence learners' mathematical proficiency. Subsequently, it determined the themes explaining how teachers' competence and readiness influence learners' mathematical proficiency, and a proposed Mathematics Teacher Competence-Readiness Framework was developed. A convergent parallel mixed-method design was used. Fifty (50) Grade 7 and/or Grade 8 mathematics teachers from selected schools in the Division of Laguna answered a researcher-made survey, while five participated in semi-structured interviews. Findings revealed that mathematics teachers are very highly competent and very highly prepared. Similarly, learners have high to very high level of mathematical proficiency. Additionally, teachers' competence has no significant influence on the mathematical proficiency of learners while teachers' readiness has a significant influence on the mathematical proficiency of learners. Furthermore, there were six (6) themes of teachers' competence and readiness that explained the mathematical proficiency of learners. A proposed Mathematics Teacher Competence-Readiness Framework was crafted based on these findings. Teachers' competence showing no significant influence on the learners' mathematical proficiency led to the acceptance of the first null hypothesis. Hence, improving learners' mathematical proficiency requires a holistic approach that considers both instructional and contextual factors within the teaching-learning process. Meanwhile, teachers' readiness, notably psychological readiness, showing significant influence on the learners' mathematical proficiency led to the rejection of the second null hypothesis. Therefore, teachers who are psychologically prepared are more effective in facilitating meaningful mathematical learning and improving learner performance. School Administrators are encouraged to prioritize interventions that boost teachers' psychological readiness, such as targeted professional development, mentorship, and stress management programs, to enhance their motivation and confidence in teaching mathematics, ultimately driving learners' overall mathematical proficiency.*

***Keywords*—** *Teachers' Competence, Teachers' Readiness, Mathematical Proficiency, Enhanced K-10 Curriculum, Psychological Readiness.*

I. INTRODUCTION

Being "numerate" is crucial for participating in various initiatives in life. It is as important as being literate. If literacy enables people to communicate with others, it is numeracy which ensures that they do it effectively, and that every situation will always be given a resolution.

In basic education, numeracy is developed through mathematics instruction that enables learners to understand concepts, apply procedures, reason logically, and solve problems. The Enhanced K–10 Curriculum emphasizes mathematical proficiency through conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and productive disposition. Achieving these outcomes depends not only on the curriculum itself but also on how effectively it is implemented in the classroom.

Teacher competence plays a crucial role in effective mathematics instruction. This includes instructional planning, adaptability, cultural sensitivity, socio-emotional competence, and technological competence, all of which help teachers address diverse learner needs and create meaningful learning experiences. Competent teachers are better able to present mathematical concepts clearly and engage learners in higher-order thinking.

Alongside competence, teacher readiness further determines the success of instruction. Psychological, behavioral, and situational readiness influence teachers' confidence, consistency, and ability to manage classroom and curriculum demands. When teachers are adequately prepared, they are more capable of responding to challenges and sustaining effective teaching practices.

Overall, learners' mathematical proficiency in the Enhanced K–10 Curriculum is closely linked to teachers' competence and readiness. Understanding how these variables interact is essential in improving mathematics instruction and supporting meaningful learning outcomes.

1.1 Statement of the Problem

Specifically, the study sought to provide the answer to the understated following questions:

1. What is the level of teachers' competence in terms of:
- *1.1. Adaptability;*
- *1.2. Cultural Sensitivity;*
- *1.3. Instructional Planning;*
- *1.4. Socio-emotional Competence; and,*
- *1.5. Technological Competence?*

2. What is the level of Teachers' Readiness in the implementation of

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Enhanced K-10 Curriculum in terms of:
2.1. Behavioral;
2.2. Situational; and,
2.3. Psychological?

3. What is the level of Mathematical Proficiency of Learners in
Enhanced K-10 Curriculum in terms of:
3.1. Conceptual Understanding;
3.2. Procedural Fluency;
3.3. Strategic Competence;
3.4. Adaptive Reasoning; and,
3.5. Productive Disposition?

II. Methodology

The research design utilized was the convergent parallel mixed method design.

According to George (2025), in a convergent parallel design, quantitative and qualitative data are being collected at the same time but being analyzed separately. After both analyses are complete, results are being compared to draw overall conclusions. Furthermore, Creswell and Plano Clark (2017) mentioned that the purpose of the design is to obtain different but complementary data about the same topic to better understand a research problem. It is used when a researcher wants to triangulate methods by comparing and contrasting quantitative and qualitative data for corroboration and validation. This approach allows for a more robust interpretation of findings by integrating multiple forms of evidence to strengthen the validity of the study's conclusions.

III. Results and Discussion

This chapter presents, analyzes, and interprets the data gathered in this study. The presentation of the results follows the order of the questions enumerated in the statement of the problem, namely: the level of teachers' competence; the level of teachers' readiness in the implementation of Enhanced K-10 Curriculum; the level of mathematical proficiency of learners in Enhanced K-10 Curriculum; the influence of teachers' competence on the mathematical proficiency of learners in Enhanced K-10 Curriculum; the influence of teachers' readiness on the mathematical proficiency of learners in Enhanced K-10 Curriculum; the themes of Teachers' Competence and Readiness that explain the Mathematical Proficiency of Learners from the Perception of Mathematics Teachers; and the proposed Mathematics Teacher Competence–Readiness Framework.

The data were presented and interpreted in tabular and textual form to give light and better understanding of the results of the study. The data gathered were from the responses of the selected fifty (50) Mathematics 7 and Mathematics 8 teachers in the Division of Laguna. Conclusions were inferred and recommendations were made thereafter.

Level of Teachers' Competence

There were five (5) indicators of teachers' competence that were taken account in this study. These include Adaptability, Cultural Sensitivity, Instructional Planning, Socio-emotional Competence, and Technological Competence. In this part, the respondents were asked to rate their selves based on how often they demonstrate the given statements. Their responses were summarized in the following table and were analyzed using mean and standard deviation.

Table 1. *Level of Teachers' Competence in Terms of Adaptability*

Statements *As a teacher, I...*	*Mean*	*SD*	*Remarks*
...adjust my teaching strategies to meet the diverse learning needs of my students.	4.88	0.33	Always
...modify my lesson plans when unexpected situations arise.	4.72	0.50	Always
...handle changes in curriculum or educational policies with flexibility.	4.72	0.54	Always
...adapt my teaching methods to suit different learning environments and contexts.	4.76	0.52	Always
...utilize differentiated instruction and emerging approaches to improve student learning.	4.66	0.52	Always
Weighted Mean	*4.75*	*4.75*	*4.75*
SD	*0.49*	*0.49*	*0.49*
Verbal Interpretation	*Very Highly Competent*		

Table 1 shows the level of Teachers' Competence in terms of Adaptability.

The results conveyed that teachers perceived themselves to be in a situation where in order to meet the diverse learning needs and improve student learning, they *always* adjust teaching strategies, lesson plans, teaching methods, handle changes in curriculum, and utilize differentiated instruction and emerging approaches.

The overall weighted mean of 4.75 and standard deviation of 0.49 indicates that the teachers are *very highly competent* in terms of adaptability.

Based from the result, it can be inferred that in any situation or whatever changes and challenges there will be in the curriculum, teachers are capable to reconstruct their practices in accordance to the educational needs and trends.

These findings are congruent with the study of Patac and Doronio (2025), which emphasized that adaptability and flexibility significantly contribute to teachers' effectiveness and performance. These skills help educators become more resilient and innovative, resulting in improved teaching practices and better learning experiences for students.

Similarly, Obidovna (2023) highlighted that it is essential to consistently enhance pedagogical practices and modify instructional approaches in response to evolving educational demands. The study further emphasized the significance of technology integration and supporting teachers' professional growth within the context of contemporary education.

Table 2 presents the level of Teachers' Competence in terms of Cultural Sensitivity.

The results expressed that teachers *always* see to it that they show respect and avoid biases to create an inclusive classroom environment where students' diversity and cultural backgrounds are recognized in delivering mathematics lessons, or even in their everyday interaction, as a whole.

The overall weighted mean of 4.83 and standard deviation of 0.41 indicates that the teachers are *very highly competent* in terms of cultural sensitivity.

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Table 2. *Level of Teachers' Competence in Terms of Cultural Sensitivity*

Statements *As a teacher, I...*	*Mean*	*SD*	*Remarks*
...respect and value the cultural backgrounds of my students.	4.90	0.36	Always
...integrate examples and contexts from students' cultures in mathematics lessons.	4.60	0.57	Always
...avoid bias and stereotypes in my classroom interactions.	4.84	0.37	Always
...encourage inclusivity and respect for diversity among my students.	4.90	0.30	Always
...create a classroom environment where all learners feel represented and accepted.	4.92	0.27	Always
Weighted Mean	*4.83*		
SD	*0.41*		
Verbal Interpretation	*Very Highly Competent*		

Based on the results, it is assumed that math teachers are proficient not just in numbers but also in identifying the cultural identities that influence people's behaviors, attitudes, and communication. Furthermore, teachers make sense of the cultural similarities and differences by integrating it in their lessons. This demonstrates that educators are using Culturally Responsive Mathematics Teaching, a new method for addressing learners' varied cultural backgrounds.

These findings are supported by Madriaga and Cajandig (2025) wherein their phenomenological study on Culturally Responsive Mathematics Teaching (CRMT) in Sultan Kudarat, Philippines, they identified 12 themes, including integration of cultural context, navigating diversity, and evolving teaching approaches. Despite challenges, teachers aim to promote equity and inclusion, highlighting the need for systemic support. In connection to this, the application of a culturally-based approach to improve numeracy ability, contextually and innovatively, is being favored by the study of Shafirah and Tsurayya (2025) which showed that learners who participated in learning with the CRT approach experienced a more significant improvement in numeracy ability compared to the control group. These studies collectively underscore the importance of integrating culturally responsive practices in mathematics instruction to enhance both equity and learner achievement.

Table 3. *Level of Teachers' Competence in Terms of Instructional Planning*

Statements *As a teacher, I...*	*Mean*	*SD*	*Remarks*
...set learning objectives that are appropriate, measurable, and aligned with competencies.	4.86	0.35	Always
...design instructional activities that address different learning styles.	4.66	0.48	Always
...ensure that my instructional materials are updated, relevant, and appropriate.	4.78	0.42	Always
...use varied assessment tools to measure student' learning progress.	4.68	0.47	Always
...create assessment that is aligned with the standards of Programme for International Student Assessment (PISA) and/or Trends in International Mathematics and Science Study (TIMSS)	4.46	0.65	Always
Weighted Mean	*4.69*		
SD	*0.50*		
Verbal Interpretation	*Very Highly Competent*		

Table 3 displays the level of Teachers' Competence in terms of Instructional Planning.

The results revealed that teachers are experts in lesson planning for they *always* set measurable objectives, design activities for diverse learning styles, use updated materials, and assess student progress with varied tools aligned with PISA/TIMSS standards. This shows that their planning is systematic and responsive to global standards and learner needs.

The overall weighted mean of 4.69 and standard deviation of 0.50 indicates that the teachers are *very highly competent* in terms of instructional planning.

In conclusion, the results suggest that the teachers consistently demonstrate strong skills in planning and preparing instructional materials, setting clear learning objectives, and organizing effective lessons. This exceptional competency likely contributes to effective teaching practices, improved student engagement, and enhanced learning outcomes.

According to the study of Sumandya et al. (2025), teacher competence and creativity have a significant influence on the ability to design mathematics instruction that meets the needs of students in inclusive schools. They further highlighted that with this competence and creativity, teachers can face the challenges of inclusive learning, ensure all students have meaningful learning experiences, and optimally develop their potential.

Table 4. *Level of Teachers' Competence in Terms of Socio-Emotional Competence*

Statements *As a teacher, I...*	*Mean*	*SD*	*Remarks*
...recognize my own emotions and understand how they affect my teaching.	4.86	0.40	Always
...show empathy and understanding toward my students' emotional needs.	4.84	0.37	Always
...help students develop positive relationships with peers.	4.90	0.30	Always
...remain calm and composed when handling classroom challenges.	4.70	0.46	Always
...foster a supportive and safe classroom environment.	4.88	0.33	Always
Weighted Mean	*4.84*		
SD	*0.38*		
Verbal Interpretation	*Very Highly Competent*		

Table 4 shows the level of Teachers' Competence in terms of Socio-Emotional Competence.

The results conveyed that teachers perceived themselves to possess emotional intelligence for they *always* recognize and manage their emotions, show empathy, and foster a supportive classroom environment.

The overall weighted mean of 4.84 and standard deviation of 0.38 indicates that the teachers are *very highly competent* in terms of socio-emotional competence.

Based on the result, it can be inferred that exceptional socio-emotional competence likely enables teachers to build strong relationships, manage classroom dynamics effectively, and promote students' emotional well-being and academic success. It also contributes to a positive school culture, improved teacher-student relationships, and enhanced student engagement and motivation. Overall, the findings highlight the

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teachers' exceptional ability to create a supportive and inclusive learning environment that promotes academic achievement and socio-emotional growth.

In the study of Braun et al. (2020), it was emphasized that teachers' emotion regulation abilities and life satisfaction were linked to students' well-being. Specifically, when teachers employed cognitive reappraisal, students experienced lower levels of emotional distress. In contrast, when teachers relied on expressive suppression, students exhibited a less positive perspective and peers observed fewer prosocial behaviors. Likewise, Gebre et al. (2025) underscored the significant role of teachers' socio-emotional competence in enhancing student engagement, which contributes to healthy and resilient development. The study further recommended the use of nested mixed-method approaches and the incorporation of socio-emotional competence training into professional development programs to strengthen both teacher competence and student engagement.

Table 5. *Level of Teachers' Competence in Terms of Technological Competence*

Statements *As a teacher, I...*	*Mean*	*SD*	*Remarks*
...use digital tools to enhance mathematics instructions.	4.50	0.58	Always
...integrate technology into lessons to improve student engagement and understanding.	4.50	0.54	Always
...demonstrate confidence in troubleshooting basic technical problems during class.	4.56	0.67	Always
...keep myself updated on emerging educational technologies.	4.62	0.57	Always
...guide students in using technology responsibly and productively.	4.62	0.60	Always
Weighted Mean	*4.56*		
SD	*0.59*		
Verbal Interpretation	*Very Highly Competent*		

Table 5 presents the level of Teachers' Competence in terms of Technological Competence.

The results expressed that teachers *always* see to it that they integrate technology, use digital tools to enhance math instruction, engagement, and understanding, while also modeling responsible technology use and staying updated on emerging technologies. This demonstrates their commitment to improving instructional delivery and fostering meaningful learning experiences through innovative and technology-enhanced teaching practices. It also reflects their adaptability in incorporating modern tools that support student-centered learning and 21st-century skill development.

The overall weighted mean of 4.56 and standard deviation of 0.59 indicates that the teachers are *very highly competent* in terms of technological competence.

Consequently, this very high technological competence likely enables teachers to create engaging and interactive learning experiences, facilitate student-centered learning, and prepare students for success in a technology-driven world. It also suggests that teachers are well-equipped to incorporate digital literacy skills into their teaching practices and support students' development of 21st-century skills. Overall, the findings highlight the teachers' strong foundation in technological competence, positioning them to effectively harness technology to enhance teaching and learning.

These findings are consistent with the study of Consoli et al. (2024) which proved that quality of technology integration significantly impacts students' behavioral engagement and digital competencies for learning, while quantity of technology use also plays a role. Similarly, Quan and Baharom (2025) asserts that teachers' digital competence positively impacts students' academic achievement, with greater impact in secondary and higher education, especially in STEM subjects, influenced by factors like student socioeconomic status, teachers' attitudes, and school resources. Moreover, in their systematic review, Arifuddin et al. (2025) mentioned that integrating technological pedagogical content knowledge (TPACK) in learning can improve teacher professionalism by enhancing self-efficacy, understanding, analyzing challenges, collaborating, and building a positive paradigm in integrating technology in learning processes.

Level of Teachers' Readiness

In this study, the behavioral, situational, and psychological readiness of the teachers in the implementation of Enhanced K-10 Curriculum were assessed. The respondents were asked to rate their selves based on how often they demonstrate the given statements. Their responses were summarized in the following table and analyzed using mean and standard deviation.

Table 6. *Level of Teachers' Readiness in Terms of Behavioral Readiness*

Statements *With the implementation of Enhanced K-10 Curriculum, I, as a teacher, ...*	*Mean*	*SD*	*Remarks*
...prepare and modify lesson plans aligned with the curriculum.	*4.80*	*0.40*	*Always*
...implement teaching strategies that encourage active participation in mathematics learning.	*4.76*	*0.52*	*Always*
...integrate real-life applications of mathematics as suggested by the curriculum.	*4.78*	*0.46*	*Always*
...manage classroom activities effectively to support the curriculum's objectives.	*4.86*	*0.35*	*Always*
...monitor and assess learners' progress based on set competencies.	*4.84*	*0.37*	*Always*
...participate in school-initiated programs related to curriculum implementation.	*4.76*	*0.43*	*Always*
...demonstrate punctuality and commitment in carrying out curriculum-related tasks.	*4.86*	*0.35*	*Always*
...collaborate with colleagues to share best teaching practices.	*4.82*	*0.39*	*Always*
...use technology and innovative approaches to support instructions.	*4.74*	*0.44*	*Always*
...model positive behavior and professionalism.	*4.92*	*0.27*	*Always*
Weighted Mean	*4.81*		
SD	*0.40*		
Verbal Interpretation	*Very Highly Prepared*		

Table 6 displays the level of Teachers' Readiness in terms of Behavioral Readiness.

The results revealed that teachers are behaviorally prepared in the implementation of Enhanced K-10

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Curriculum. They *always* prepare and modify lesson plans aligned with the curriculum, implement teaching strategies that encourage active participation in mathematics learning, integrate real-life applications of mathematics as suggested by the curriculum, manage classroom activities effectively to support the curriculum's objectives, monitor and assess learners' progress based on set competencies, participate in school-initiated programs related to curriculum implementation, demonstrate punctuality and commitment in carrying out curriculum-related tasks, collaborate with colleagues to share best teaching practices, use technology and innovative approaches to support instructions, and model positive behavior and professionalism.

The overall weighted mean of 4.81 and standard deviation of 0.40 indicates that the teachers are *very highly prepared* in terms of behavioral readiness.

The extremely high mean score reflects a profound level of preparedness, indicating that teachers are consistently demonstrating behaviors that support a productive and respectful learning environment. They likely model positive behaviors, maintain high expectations for themselves and their students, and contribute to a positive school culture. The low standard deviation indicates a remarkable consistency among teachers in terms of behavioral readiness, suggesting a strong shared commitment to maintaining a supportive and professional learning environment. This exceptional behavioral readiness likely contributes to a positive and focused learning atmosphere, fostering student engagement, motivation, and academic achievement. Overall, the findings highlight the teachers' exceptional preparedness to provide a stable and supportive learning environment that promotes academic success and personal growth.

These results are supported by Manalo (2024), whose study showed that teachers exhibited high readiness, particularly in instructional strategies and meeting diverse learner needs. However, challenges in curriculum adaptation and addressing students' physical needs remain, indicating the need for further professional development.

Table 7 displays the level of Teachers' Readiness in terms of Situational Readiness.

The results revealed that teachers perceived themselves to be prepared with regard to the support they receive in the implementation of Enhanced K-10 Curriculum.

The overall weighted mean of 4.62 and standard deviation of 0.58 indicates that the teachers are *very highly prepared* in terms of situational readiness.

Based on the result, teachers perceive strong support from the school or department in implementing the Enhanced K-10 Curriculum, including access to resources, training, and administrative backing. The high mean score indicates that teachers feel equipped and supported to effectively implement the curriculum changes, with adequate provision of necessary tools, guidance, and encouragement. They likely perceive a collaborative environment where they can seek help, share experiences, and receive feedback, enabling them to navigate the demands of curriculum implementation. The relatively low standard deviation suggests a generally consistent level of perceived support among teachers, indicating a shared sense of situational readiness. This very high situational readiness likely boosts teacher confidence, morale, and motivation, ultimately contributing to successful curriculum implementation and improved student outcomes.

Table 7. *Level of Teachers' Readiness in Terms of Situational Readiness*

Statements *With the implementation of Enhanced K-10 Curriculum, I, as a teacher, ...*	*Mean*	*SD*	*Remarks*
...am provided with clear guidelines and standards from DepEd.	4.70	0.46	Always
...have attended training and seminars that prepared me for implementation.	4.58	0.78	Always
...have manageable teaching loads that allow me to focus on curriculum demands.	4.78	0.42	Always
...am given enough time to plan curriculum-aligned lessons.	4.68	0.47	Always
...receive adequate administrative and institutional support.	4.46	0.68	Always
...have access to school environment that fosters innovation and creativity.	4.50	0.61	Always
...have a classroom environment conducive to implementing required strategies.	4.62	0.53	Always
...have access to sufficient teaching and learning materials.	4.46	0.65	Always
...can adapt available resources to meet the curriculum requirements.	4.66	0.52	Always
...am provided with opportunities for collaboration with colleagues.	4.72	0.57	Always
Weighted Mean	*4.62*		
SD	*0.58*		
Verbal Interpretation	*Very Highly Prepared*		

These findings are congruent with the study of Barcelona and Cacharo (2025) which revealed that teachers were highly prepared for the MATATAG Curriculum, though areas such as assessment methods, differentiated instruction, and access to digital resources required improvement. On the other hand, the findings of Villaver (2024) showed that although many schools have a positive attitude toward implementing the MATATAG Curriculum, a significant portion of teachers still express concerns about their readiness due to potential gaps in training and understanding of the new curriculum's approach. This underscores the need for focused professional development to fully equip them with the skills necessary to teach using the MATATAG framework.

Table 8 displays the level of Teachers' Readiness in terms of Psychological Readiness.

The results revealed that teachers are psychologically prepared in the implementation of Enhanced K-10 Curriculum.

The overall weighted mean of 4.71 and standard deviation of 0.53 indicates that the teachers are *very highly prepared* in terms of psychological readiness.

Based on the result, it can be inferred that teachers are confident in their abilities, motivated to teach, and open to new ideas and approaches. They likely possess a strong sense of self-efficacy, which enables them to tackle complex teaching situations and persist in the face of obstacles. This exceptional psychological readiness likely enables teachers to create a supportive and inclusive learning environment, foster a growth mindset in students, and navigate the emotional

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demands of teaching with ease. Overall, the findings highlight the teachers' strong mental and emotional foundation, positioning them to thrive in their roles and deliver high-quality instruction.

Table 8. *Level of Teachers' Readiness in Terms of Psychological Readiness*

Statements *With the implementation of Enhanced K-10 Curriculum, I, as a teacher, ...*	*Mean*	*SD*	*Remarks*
...feel confident in my ability to teach mathematics effectively.	4.86	0.45	Always
...am motivated to adapt to the changes brought by the curriculum.	4.64	0.56	Always
...believe that the curriculum will improve learners' mathematical proficiency.	4.38	0.78	Always
...am open to adjusting my teaching style to align with curriculum demands.	4.76	0.43	Always
...feel optimistic about the outcomes of curriculum implementation.	4.66	0.59	Always
...am emotionally prepared to handle the challenges related to implementation.	4.72	0.45	Always
... believe I can manage stress while adapting to curriculum changes.	4.72	0.45	Always
...am willing to continuously learn and improve for curriculum success.	4.78	0.46	Always
...feel a strong sense of responsibility to ensuring successful implementation.	4.82	0.39	Always
...am ready to embrace innovation and change for the benefit of learners.	4.80	0.45	Always
Weighted Mean	*4.71*		
SD	*0.53*		
Verbal Interpretation	*Very Highly Prepared*		

These findings are similar to Lorono (2025) whose study revealed that teachers exhibit strong agreement with regard to their attitude towards implementing the MATATAG curriculum. This suggests that teachers have a high degree of confidence in the MATATAG curriculum's ability to improve student learning. This is essential for a successful implementation since teachers' dedication and effort are largely motivated by their conviction in the curriculum's efficacy. Such confidence further reinforces teachers' willingness to actively engage in curriculum implementation and sustain instructional improvements. It also highlights the important role of positive teacher attitudes in ensuring the effective and meaningful execution of educational reforms.

Level of Mathematical Proficiency of Learners

There are five (5) indicators of mathematical proficiency of learners that were taken account in this study. These include Conceptual Understanding, Procedural Fluency, Strategic Competence, Adaptive Reasoning, and Productive Disposition. In this part, the respondents were asked to rate the learners based on how often they demonstrate the given statements. Their responses were summarized in the following table and analyzed using mean and standard deviation.

Table 9 presents the level of Mathematical Proficiency of Learners in terms of Conceptual Understanding.

The results expressed that teachers perceive the learners as *always* capable of explaining math concepts, making connections between ideas, understanding underlying principles, recognizing relationships, and applying math to real-life situations. This suggests that teachers observe a strong level of conceptual understanding and meaningful engagement in mathematics among their students. It also indicates that learners are able to transfer mathematical knowledge to practical contexts, demonstrating the development of deeper mathematical proficiency.

The overall weighted mean of 4.35 and standard deviation of 0.74 indicates that the learners are *very highly proficient* in terms of conceptual understanding, as perceived by the teachers.

Table 9. Level of Mathematical Proficiency of Learners in Terms of Conceptual Understanding

Statements *With the implementation of Enhanced K-10 Curriculum, the learners can…*	*Mean*	*SD*	*Remarks*
...explain mathematical concepts in their own words.	4.30	0.76	Always
...connect new mathematical ideas to previously learned concepts.	4.34	0.75	Always
...demonstrate understanding of the "why" behind mathematical procedures.	4.30	0.74	Always
...recognize relationships among mathematical symbols, graphs, diagrams, and representations.	4.46	0.71	Always
...apply mathematical concepts to real-life mathematical situations.	4.34	0.75	Always
Weighted Mean	*4.35*		
SD	*0.74*		
Verbal Interpretation	*Very Highly Proficient*		

Based on the result, the high mean score indicates that teachers perceive learners as generally proficient in making connections between ideas, interpreting information, and demonstrating comprehension of subject matter. However, the relatively higher standard deviation (0.74) compared to other metrics suggests some variability in teachers' perceptions of learners' conceptual understanding, indicating differences in how learners grasp concepts across classes or subjects. This very high proficiency in conceptual understanding likely enables learners to engage more deeply with content, apply knowledge to new situations, and build upon foundational concepts. Overall, the findings highlight teachers' positive assessment of learners' ability to grasp and apply key concepts, positioning them for further academic success.

In relation to these findings, Istikomah (2019) found a significant relationship between comprehending the concept of mathematical transformation with the achievement of the learner. Thus, the more the comprehension of learners' mathematical ideas, the greater the value of performance. In a different perspective, Edulsa (2022) found that although students demonstrated a very low level of conceptual understanding and poor academic performance, a significant relationship existed between conceptual understanding and academic achievement.

Table 10 presents the level of Mathematical Proficiency of Learners in terms of Procedural Fluency.

The results expressed that teachers perceive the learners as *always* capable of performing mathematical procedures accurately, solving problems efficiently, and demonstrating flexibility in approach, with room for improvement in completing tasks within a reasonable time frame. This

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indicates that learners show strong procedural fluency and problem-solving skills, although time management remains an area for further development. It also suggests that continued instructional support is needed to enhance both accuracy and efficiency in mathematical task performance.

Table 10. *Level of Mathematical Proficiency of Learners in Terms of Procedural Fluency*

Statements With the implementation of Enhanced K-10 Curriculum, the learners can…	*Mean*	*SD*	*Remarks*
...perform mathematical procedures accurately.	4.34	0.77	Always
... solve problems efficiently using appropriate strategies.	4.22	0.79	Always
...demonstrate flexibility in using different methods to solve a problem.	4.24	0.77	Always
...perform routine computations accurately with minimal errors.	4.26	0.88	Always
...complete mathematical tasks within a reasonable amount of time.	4.16	0.84	Often
Weighted Mean	*4.24*		
SD	*0.81*		
Verbal Interpretation	*Very Highly Proficient*		

The overall weighted mean of 4.24 and standard deviation of 0.81 indicates that the learners are *very highly proficient* in terms of procedural fluency, as perceived by the teachers.

The high mean score indicates that teachers perceive learners as generally proficient in carrying out procedures, using tools and methods appropriately, and demonstrating a level of automaticity in skills like problem-solving, calculation, or experimentation. However, the relatively higher standard deviation (0.81) suggests some variability in teachers' perceptions of learners' procedural fluency, indicating differences in how learners develop and apply these skills. Moreover, this very high proficiency in procedural fluency likely enables learners to tackle complex tasks, apply knowledge in practical situations, and build upon foundational skills. Overall, the findings highlight teachers' positive assessment of learners' ability to apply procedures effectively, supporting their academic progress.

These findings are well-supported by the study of Sali and Rabut (2025) which revealed that while students possess some level of procedural fluency, further improvement is necessary. Their results further indicate that learners still struggle with consistency and efficiency when applying mathematical procedures in different problem-solving contexts. This suggests that procedural skills are not yet fully developed and require continuous reinforcement. It also highlights the importance of providing varied practice opportunities to strengthen students' mastery of mathematical procedures. Furthermore, targeted instructional strategies are needed to help learners improve both accuracy and speed in solving mathematical tasks.

Table 11 presents the level of Mathematical Proficiency of Learners in terms of Strategic Competence.

The results expressed that teachers perceive the learners as *always* capable of translating real-world problems into mathematical representations, creating and implementing strategies to solve non-routine problems, choosing the most effective strategy among possible approaches, and revising or adapting their strategies when their initial solution does not work. However, they *often* plan logical steps when approaching complex mathematical problems. This indicates that learners demonstrate strong strategic competence in handling various mathematical tasks. It also shows that they are capable of flexible thinking when confronted with unfamiliar problems. However, there is still a need to further strengthen their consistency in applying optimal strategies across different problem-solving situations. Continuous exposure to complex and real-life mathematical problems may further enhance their decision-making and reasoning skills.

Table 11. *Level of Mathematical Proficiency of Learners in Terms of Strategic Competence*

Statements With the implementation of Enhanced K-10 Curriculum, the learners can…	*Mean*	*SD*	*Remarks*
...translate real-world problems into mathematical representations.	4.30	0.74	Always
...create and implement strategies to solve non-routine problems.	4.22	0.76	Always
...plan logical steps when approaching complex mathematical problems.	4.16	0.89	Often
...choose the most effective strategy among possible approaches.	4.32	0.71	Always
...revise or adapt their strategies when their initial solution does not work.	4.28	0.78	Always
Weighted Mean	*4.26*		
SD	*0.78*		
Verbal Interpretation	*Very Highly Proficient*		

The overall weighted mean of 4.26 and standard deviation of 0.78 indicates that the learners are *very highly proficient* in terms of strategic competence, as perceived by the teachers.

The high mean score indicates that teachers perceive learners as generally proficient in identifying goals, selecting approaches, and adapting strategies to tackle problems. The relatively higher standard deviation (0.78) suggests some variability in teachers' perceptions of learners' strategic competence. This very high proficiency in strategic competence likely enables learners to tackle complex problems, apply math to real-world situations, and develop critical thinking skills. Overall, the findings highlight teachers' positive assessment of learners' ability to think strategically and solve problems effectively.

The results were reinforced by the study of Sabilah et al. (2018), which examined the strategic competence of sixth-, seventh-, and eighth-grade students in solving open-ended problems. Their study involved 25 students with varying levels of mathematical competence. The findings revealed that students comprehended the problems through reading and creating drawings or graphs, developed solution plans by drawing on their prior knowledge of quadrilaterals, and applied both numerical and visual strategies to address the open-ended tasks. Ultimately, they were able to identify efficient solutions using arithmetic methods, correctly determine all possible answers, and select the most economical options.

Table 12 presents the level of Mathematical Proficiency of Learners in terms of Adaptive Reasoning.

The results expressed that teachers perceive the learners as

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always capable of justifying their solutions and explaining their reasoning, evaluating the correctness of their own and others' solutions, demonstrating logical thinking in solving unfamiliar problems. However, they *often* identify errors in reasoning and suggest appropriate corrections, draw valid conclusions based on given mathematical evidence or conditions.

Table 12. Level of Mathematical Proficiency of Learners in Terms of Adaptive Reasoning

Statements *With the implementation of Enhanced K-10 Curriculum, the learners can…*	*Mean*	*SD*	*Remarks*
…justify their solutions and explain their reasoning.	4.20	0.86	Always
…evaluate the correctness of their own and others' solutions	4.28	0.78	Always
…identify errors in reasoning and suggest appropriate corrections.	4.16	0.84	Often
…demonstrate logical thinking in solving unfamiliar problems.	4.20	0.86	Always
…draw valid conclusions based on given mathematical evidence or conditions.	4.16	0.89	Often
Weighted Mean *SD* *Verbal Interpretation*	*4.20* *0.84* *Highly Proficient*		

The overall weighted mean of 4.20 and standard deviation of 0.84 indicates that the learners are *highly proficient* in terms of adaptive reasoning, as perceived by the teachers.

Based on the result, the mean score indicates that teachers perceive learners as proficient in making connections, recognizing patterns, and applying reasoning to solve problems. The relatively higher standard deviation (0.84) suggests some variability in teachers' perceptions of learners' adaptive reasoning. This proficiency in adaptive reasoning likely enables learners to tackle complex tasks, apply knowledge in new situations, and develop critical thinking skills. Overall, the findings highlight teachers' positive assessment of learners' ability to think flexibly and reason effectively. This also implies that while many learners demonstrate strong reasoning skills, others may still require additional support to reach the same level of proficiency. It further suggests the need for differentiated instruction to address varying levels of adaptive reasoning among students.

These findings align with the results of the adaptive reasoning assessment conducted by Darwani et al. (2020) following the implementation of the Problem-Based Learning (PBL) model, which indicated that most students attained all adaptive reasoning indicators. Of the twenty-nine students involved, twenty-three successfully met all indicators, while the remaining six achieved only two, namely making conjectures and providing justification or evidence for the validity of a statement. Similarly, Stanford (2022) emphasized that fostering adaptive reasoning among young mathematics learners contributes to the development of mathematically proficient students who remain actively engaged and successful in the classroom. Moreover, Battista (2017) asserted that students who develop meaningful understanding and make sense of mathematical concepts are more likely to remain engaged in learning, whereas those who rely primarily on rote memorization may encounter persistent difficulties and gradually disengage from mathematics education.

Table 13. Level of Mathematical Proficiency of Learners in Terms of Productive Disposition

Statements *With the implementation of Enhanced K-10 Curriculum, the learners can…*	Mean	SD	Remarks
…show confidence in solving mathematical problems.	4.28	0.73	Always
…believe that effort leads to improvement in mathematics.	4.44	0.64	Always
…demonstrate perseverance when faced with challenging problems.	4.22	0.82	Always
…show a positive attitude toward learning mathematics.	4.36	0.69	Always
…value the importance of mathematics in their daily life.	4.42	0.70	Always
Weighted Mean *SD* *Verbal Interpretation*	*4.34* *0.72* *Very Highly Proficient*		

Table 13 presents the level of Mathematical Proficiency of Learners in terms of Productive Disposition.

The results expressed that teachers perceive the learners as *always* capable of showing confidence in solving mathematical problems, believing that effort leads to improvement in mathematics, demonstrating perseverance when faced with challenging problems, showing a positive attitude toward learning mathematics, and valuing the importance of mathematics in their daily life. This indicates that learners exhibit a strong productive disposition toward mathematics. It also suggests that they are more likely to engage actively and persistently in learning tasks due to their positive beliefs and attitudes toward the subject. Furthermore, such disposition contributes to their willingness to overcome difficulties and remain motivated in learning mathematics. In addition, it reflects how learners develop resilience when faced with complex mathematical tasks and challenges. Overall, this highlights the importance of nurturing positive attitudes and beliefs in mathematics education to sustain learners' engagement and achievement.

The overall weighted mean of 4.34 and standard deviation of 0.72 indicates that the learners are *very highly proficient* in terms of productive disposition, as perceived by the teachers.

Referring on the results, the high mean score indicates that teachers perceive learners as generally having a productive mindset, being willing to engage with math tasks, and persisting when faced with challenges. This very high proficiency in productive disposition likely enables learners to approach math with confidence, tackle difficult problems, and develop a growth mindset. Overall, the findings highlight teachers' positive assessment of learners' attitudes and motivation towards math, positioning them for continued growth and success.

These findings are consistent with the study of Rahman (2025) which revealed that students' learning outcomes in mathematics are significantly impacted by learning motivation, self-efficacy, and productive disposition. Therefore, in order to increase student learning outcomes in a complete and long-lasting way, instructional practices in

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schools should include the development of productive dispositions, self-efficacy, and learning motivation. This further emphasizes that affective factors play a vital role in shaping students' engagement and achievement in mathematics. It also suggests that strengthening these psychological and motivational aspects can lead to more sustainable improvements in learners' performance.

IV. Conclusion and Recommendations

Based on the findings of the study, the following conclusions were drawn.

1. Teachers' competence showing no significant influence on the mathematical proficiency of learners lead to the acceptance of the null hypothesis. Although teachers demonstrated high levels of competence, learners' mathematical proficiency may be affected by other contributing factors beyond teachers' competence alone. Hence, improving learners' mathematical proficiency requires a holistic approach that considers both instructional and contextual factors within the teaching-learning process.

2. Teachers' readiness showing a significant influence on the mathematical proficiency of learners lead to the rejection of the null hypothesis. Specifically, the study revealed that psychological readiness significantly predicts the overall mathematical proficiency of learners. This indicates that teachers who are psychologically prepared are more effective in facilitating meaningful mathematical learning and improving learner performance.

3. Teachers' competence and readiness explained the mathematical proficiency of learners through themes such as Instructional Planning as a Flexible and Reflective Process; Addressing Learner Diversity and Challenges in Curriculum Implementation; Cultural Responsiveness and Technology Integration as a Tool for Engagement and Meaning-Making; Socio-Emotional Competence/Psychological Preparedness and Socio-Economic Sensitivity in Teaching; Importance of Learning Habits and Disposition in Mathematical Learning; and Resource Availability and Support Systems. These ideas integrated with the quantitative findings led to the development of a proposed Mathematics Teacher Competence-Readiness Framework.

Based on the findings and conclusions of the study, the following recommendations are proposed:

1. Curriculum Developers and Policy Makers may consider strengthening policies and programs that support teachers' readiness, particularly psychological readiness, since it was found to significantly influence learners' mathematical proficiency. Professional development initiatives, mental wellness programs, and continuous training on learner-centered, culturally responsive, and technology-integrated instruction might be institutionalized to ensure effective curriculum implementation. Furthermore, the proposed Mathematics Teacher Competence-Readiness Framework may be utilized as a reference in designing curriculum enhancements, instructional guidelines, and educational policies that promote holistic mathematics teaching and improved learner outcomes.

2. School Administrators are recommended that they implement programs that support not only teachers' competence but also their psychological readiness. Professional development initiatives may include components on teacher well-being, resilience, and motivation, alongside content and pedagogy. They are also advised to ensure the availability of resources, foster collaborative environments, and promote culturally responsive and flexible curriculum implementation. Such support systems are essential in maximizing teaching effectiveness and improving learners' mathematical outcomes.

3. Mathematics Teachers are encouraged to adopt the proposed Mathematics Teacher Competence-Readiness Framework as a guiding tool to integrate competence, readiness, and support systems into a more reflective and adaptive teaching practice. The use of this framework is important because it promotes a holistic approach to teaching, emphasizing not only skills and knowledge but also mindset, motivation, and contextual responsiveness. Additionally, teachers are also suggested to continue fostering positive learning habits, cultural responsiveness, and inclusive practices to support diverse learners.

Reference

[1]. Benson, P. (2017). Teaching and researching autonomy in language learning (2nd ed.). Routledge.
[2]. Bygate, M. (2018). Learning language through task repetition. John Benjamins Publishing Company.
[3]. Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). Sage Publications.
[4]. Ellis, R. (2018). The study of second language acquisition (2nd ed.). Oxford University Press.
[5]. Hahn, L. D., & Dickerson, W. B. (2018). Practical English pronunciation. University of Illinois Press. (Your manuscript cites 2017 in one section—change the in-text citation to 2018 for consistency.)
[6]. Hendrickson, J. M. (2017). Pronunciation in second language teaching and learning. Routledge.
[7]. Levis, J. M., & Son, J. B. (2019). Intelligibility, oral communication, and teaching pronunciation. Routledge.
[8]. Long, M. H. (2017). In defense of the interaction hypothesis. Routledge.
[9]. Nation, I. S. P., & Newton, J. (2020). Teaching ESL/EFL listening and speaking (2nd ed.). Routledge.
[10]. Richards, J. C. (2017). Curriculum development in language teaching (2nd ed.). Cambridge University Press.
[11]. Sato, M., & Ballinger, S. (2016). Peer interaction. Language Teaching, 49(3), 271–285. https://doi.org/10.1017/S0261444815000169
[12]. Stockwell, G. (2022). Mobile-assisted language learning: Concepts, contexts and challenges. Cambridge University Press.
[13]. Thornbury, S. (2017). How to teach speaking (2nd ed.). Pearson.
[14]. Willis, D., & Willis, J. (2019). Doing task-based teaching. Oxford University Press.
[15]. Zhang, W., Zhao, M., & Zhu, Y. (2022). Understanding individual differences in metacognitive strategy use, task demand, and performance in integrated L2 speaking assessment tasks. System, 105, 102736. https://doi.org/10.1016/j.system.2022.102736

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