

Teachers' Perception and Challenges in the Implementation of the Math Curriculum and Performance of Grades 1 & 4 Learners

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Abstract —This study determines the significant relationship between the extent of teachers' perception and challenges in the implementation of Math curriculum and performance of grades 1 and 4 learners. A descriptive-correlational research design utilizing a survey questionnaire on the perception of teachers and challenges met in the implementation of Math curriculum taken from the study of Abrasado et al., (2024) entitled, "The Role of MATATAG Curriculum on Shaping Academic Performance: Insights to Pilot Schools in Baliuag City, Bulacan. There are thirteen (13) teachers, and 105 grades 1 & 4 learners involved in this study from Tagaytay Elementary School of Kananga II District, Leyte Division. The study's findings confirm a significant relationship between the extent of teachers' perceptions and the challenges met in the implementation of the Math curriculum. The data implies that highly engaged teachers in the curriculum's execution are more likely to encounter and identify obstacles that hinder effective teaching and learning. Hence, it is essential for educational leaders, like the school heads and policymakers, to recognize that improving teachers' perceptions of the curriculum must be accompanied by enhanced support mechanisms, such as professional development activities, provision of adequate materials for the construction of learning resources, technical assistance in the formulation of assessment tools and constant monitoring on teaching and learning activities. Addressing these challenges can lead to a more effective and sustainable Math curriculum implementation, ultimately improving teaching effectiveness and learners' learning outcomes.

Keywords — *Teachers' Perception, Challenges, Implementation, Math Curriculum, Performance, Grades 1 & 4 Learners*

I. INTRODUCTION

Implementing a new curriculum in an education department, has extensive implications across various facets of the education system. Teachers, being at the forefront of curriculum implementation, must undergo training to acquaint themselves with the new curriculum's content, methodologies, strategies and assessments. This training is pivotal to ensure that teachers can adeptly deliver the curriculum and assist students in achieving the intended learning outcomes.

For learners, the transition to a new curriculum entail experiencing a different approach to learning, which could potentially influence their academic experiences and outcomes making them ready to whatever educational endeavor ahead. The need to adjust to new expectations, teaching styles, and learning materials and activities, possibly impacting their academic performance and overall engagement in school.

School administrators hold a crucial role in orchestrating the implementation of the new curriculum. This include managing various aspects such as scheduling, resource allocation, programming, and progress monitoring and evaluation

to ensure a seamless transition. Effective communication with teachers, students, parents, and other stakeholders is paramount to address concerns and provide support throughout the transition period of the implementation. Curriculum developers bear the responsibility of designing the new curriculum, taking into consideration the needs of students, teachers, and the education system considering the desired educational goals for the learners. Piloting the curriculum in select grade levels allows developers to assess its effectiveness and make necessary adjustments. This iterative process ensures that the curriculum aligns with its intended goals and enhances student learning outcomes.

Parents also play a crucial role in supporting their children as they adapt to the new curriculum. The need to stay informed about the changes and actively participate in their children's education to help them succeed under the new curriculum needs proper communication. Schools, as institutions, must adapt their policies, procedures, and resources to align with the new curriculum. This may involve changes to the school schedule, classroom layouts, assignment of teachers, and technology infrastructure to effectively support the implementation of the new curriculum.

The changing of curriculum in an education department necessitates meticulous planning, coordination, and evaluation to ensure a positive impact on student learning outcomes and enhance the overall quality of education taking into consideration the capacity and capability of every member of the education sector.

The Department of Education (DepEd) launched the MATATAG Curriculum as a recalibrated K to 10 curriculums under the K to 12 programs. MATATAG stands for "Make the curriculum relevant to produce job-ready, Active and responsible citizens; TAke steps to accelerate the delivery of basic education services and provision facilities; TAke good care of learners by promoting learner well-being, inclusiveness learning, and positive learning environment; and give support for teachers to teach better." The MATATAG Curriculum, which aims to decongest basic education competencies, was established not just to improve Filipino learners' performance in international assessments like the Program for International Student Assessment (PISA), but to improve their overall performance making them ready to compete the ever changing and challenging world.

The implementation of the MATATAG Curriculum represents a significant leap forward in Philippine education, aiming to address challenges, enhance learning outcomes, and prepare students for the demands of the 21st century. By acknowledging the importance of assessment data, streamlining the curriculum and providing targeted support to teachers and students, the MATATAG Curriculum has the potential to be a game-changer in education, paving the way for a more relevant, effective, and inclusive learning experience for all.

Further, school year 2024-2025 has started last July 29, 2024, and abrupt implementation of this new curriculum is deemed significant because teachers and other school personnel are not yet ready to implement. With the DepEd issuances of affecting the time allotment for each learning area had made each curriculum implementer challenging which caused many issues and chaos. Hence, this study was formulated to determine the significant relationship between the teachers' perception and challenges in the implementation of Math curriculum and determining the level of performance of grades 1 & 4 learners. A proposed intervention plan was crafted based on the result of the study.

It is in the rationale that the researcher who is currently teaching in the above mentioned local, would like to delve worthy research undertaking that will benefit herself, the school she is currently teaching and that of her Graduate Program she is enrolled at.

This study determines the significant relationship between the extent of teachers' perception and challenges in the implementation of Math curriculum and determine the level of performance of learners in Grades 1 & 4 in Tagaytay Elementary School, Kananga II District, Leyte Division. The findings of the study were the basis for the proposed intervention plan.

Specifically, this study sought to answer the following questions:

1. What is the extent of teachers' perception in the implementation of math curriculum?
2. What is the extent of challenges in the implementation of math curriculum?

3. What is the performance of Grades 1 & 4 earners in Math in the second quarter?
4. Is there a significant relationship between the extent of teachers' perception and challenges in the implementation of Math curriculum?
5. What intervention plan can be proposed based on the findings of this study?

II. METHODOLOGY

Design. This study adopted a descriptive-correlational research design to explore the relationship between the extent of extent of teachers' perception and challenges in the implementation of Math curriculum and performance of Grades 1 & 4 learners. The study was conducted in Tagaytay Elementary School of Kananga II-District, Schools Division of Leyte, a reputable educational institution located in Kananga, Leyte. It is situated in Sitio Laray, Brgy. Tagaytay, Kananga, Leyte which has approximately 2.9 km from Municipality of Kananga. Established in 1964, the school has built a strong tradition of academic excellence, known for its commitment to quality education and holistic student development. The school serves approximately four hundred five (405) learners, with a teaching staff of thirteen (13) many of whom are experienced professionals in their fields. The instrument used in this study is a survey questionnaire which describes the extent of teachers' perception and challenges in the new time allotment in teaching Math. This is a researcher-made survey taken from the teachers' perceptions and challenges met while implementing the curriculum specifically on the time allotment for the subject Math. Further, the researcher also was guided with the formulation of the survey on the study of Abrasado et al., (2024) entitled, "The Role of MATATAG Curriculum on Shaping Academic Performance: Insights to Pilot Schools in Baliuag City, Bulacan. This is composed of 10 statements which describes the teachers' perception and 10 statements also for teachers' challenges in the new time allotment in teaching Math. The survey can be accomplished using the Five-Point Likert Scale where 5 means Strongly Agree, 4 means Agree, 3 means Moderately Agree, 2 means Disagree and 1 means Strongly Disagree. Moreover, to measure the performance of learners in Math, the researcher gathered the result of Quarter 2 assessment conducted by the teachers in the subject. This research aims to understand how these perceptions and challenges met by the teachers in the implementation of Math curriculum will help in formulating intervention plans which will help support the learners in improving their performance in Math.

Sampling. The respondents of this study were thirteen (13) teachers, and 405 learners. Complete enumeration was employed in choosing the respondents of the study.

Research Procedure. Upon receiving approval to proceed with the research, data collection began. Formal requests for study approval were submitted to the appropriate authorities. Letter requests to conduct the study were submitted to proper authorities for approval. First, a letter request was submitted to the Schools Division Superintendent for approval to proceed with data gathering among the identified respondents. After the approval of the SDS, permission letters were also submitted to the Public Schools District Supervisor and School Principal of the school. After approval, the researcher proceeded into data gathering. The researcher conducted an orientation to the respondents. A permit from the respondents were asked which stipulates their consent to be included in the study. After the orientation, survey questionnaires were distributed to the respondents. The respondents were given ample time to complete the survey. The researcher also gathered the result of the 2nd quarter in Math. After accomplishing the survey and gathering of the grades, data were collected, tallied, and submitted for statistical treatment.

Ethical Issues. The researcher secured approval to conduct the study from the relevant authorities before proceeding especially to the parents of the learners included in the study. In utilizing the survey for this research, special care was taken to ensure the avoidance of any language that could be deemed inappropriate, discriminatory, or offensive. To protect the privacy of the respondents, their personal identities and information were kept confidential. Participation in the study was voluntary. An orientation session was conducted for the respondents to clarify any questions or concerns. Throughout the course of this research, the researcher ensured impartiality in analyzing and interpreting the data. All referenced works included in this study were properly cited and acknowledged in the reference list.

Treatment of Data. The quantitative responses underwent tallying and tabulation. Statistical treatment involved using specific tools: Simple Percentage and Weighted Mean assessed the extent of teachers' perception and challenges in the in the implementation of Math curriculum and performance of learners. Pearson r was utilized to ascertain the significant relationship between the dependent and independent variables.

III. RESULTS AND DISCUSSION

Table 1
Extent of Teachers' Perception in the Implementation of Math Curriculum

A	Indicators	Weighted Mean	Description	Interpretation
1	The new time allotment is sufficient to cover Math curriculum.	4.10	Agree	High
2	The new time allotment allows me to meet all learning objectives for my learners.	3.65	Agree	High
3	The adjusted time positively impacts learners' understanding of Math concepts.	3.54	Agree	High
4	I can maintain learners' engagement within the new time constraints.	4.08	Agree	High
5	The new Math curriculum has reduced the pressure on learners to learn too much in one session.	3.75	Agree	High
6	The new Math curriculum has increased my workload or stress level.	3.78	Agree	High
7	I feel that the time allotted aligns well with the Math curriculum requirements.	3.68	Agree	High
8	I consider the new Math curriculum is reasonable to introduce a new concept, but it's unlikely enough for learners to master it.	3.25	Moderately Agree	Average
9	The new time allotment is adequate for covering all the developmental activities.	3.26	Moderately Agree	Average
10	Teachers expressed optimism with the new Math curriculum considering the learners' shorter attention spans.	3.59	Agree	High
	AVERAGE	3.67	Agree	High

Legend:

RANGES	DESCRIPTION	INTERPRETATION
4.21-5.00	<i>Strongly Agree</i>	<i>Very High</i>
3.21-4.20	<i>Agree</i>	<i>High</i>
2.61-3.40	<i>Moderately Agree</i>	<i>Average</i>
1.81-2.60	<i>Disagree</i>	<i>Low</i>
1.00-1.80	<i>Strongly Disagree</i>	<i>Very Low</i>

Table 1 evaluates the extent of teachers' perceptions in implementing the Math curriculum, which received an average weighted mean of 3.67, which is high. This data suggests that, overall, teachers received a positive perception of the implementation of the Math curriculum, indicating confidence in the delivery of the lesson and are satisfied with its execution. Teachers felt that the Math curriculum is well-structured and aligned with the learning competencies needed by the learners, making it easier to implement and perform, which will attain positive learning outcomes for learners. Adequate instructional materials and assessment tools may contribute to teachers' positive perceptions. From the training attended by the teachers, it was evident that they learned the strategies and approaches taught and correctly implemented the Math curriculum with high regard for their teaching strategies and techniques. However, for the result's sustainability and to improve the implementation, teachers need to exert more effort, requiring continuous support from school heads and stakeholders, regular conduct of professional development activities, and curriculum monitoring and evaluation to address potential challenges and ensure success in math.

Table 2
Challenges Met in the Implementation of Math Curriculum

B	Indicators	Weighted Mean	Description	Interpretation
1	I struggle to cover all necessary topics within the new time limit.	3.90	Agree	High
2	The new time allotment makes it difficult to maintain a steady instructional place.	3.55	Agree	High
3	I find it challenging to give individualized attention to learners due to limited time.	3.56	Agree	High
4	I experience increased stress trying to meet curriculum goals within the new time constraints.	3.88	Agree	High
5	The new Math curriculum limits my ability to implement engaging, hands-on activities.	3.15	Moderately Agree	Average
6	I am unable to address the diverse learning needs of learners within the allotted time for the current curriculum.	3.08	Moderately Agree	Average
7	I feel that the Math curriculum affects the depth of understanding learners achieve in the subject.	3.00	Moderately Agree	Average
8	Teachers expressed difficulty in fully addressing complex competencies, especially those requiring higher-order cognitive skills within the limited time frame.	3.75	Agree	High
9	Teachers sometime struggle to accommodate all subjects effectively, hindering the opportunity for learners to develop essential skills comprehensively.	3.96	Agree	High
10	Teachers find it difficult to cater everyone's needs in a short time.	3.69	Agree	High
	AVERAGE	3.55	Agree	High

Legend:

RANGES	DESCRIPTION	INTERPRETATION
4.21-5.00	<i>Strongly Agree</i>	<i>Very High</i>
3.21-4.20	<i>Agree</i>	<i>High</i>
2.61-3.40	<i>Moderately Agree</i>	<i>Average</i>
1.81-2.60	<i>Disagree</i>	<i>Low</i>
1.00-1.80	<i>Strongly Disagree</i>	<i>Very Low</i>

Table 2 evaluates teachers' challenges in implementing the Math curriculum, revealing an average weighted mean of 3.55, interpreted as high. This data shows that due to the implementation of the Math curriculum under the Revised K to 10 Curriculum, teachers encountered challenges in the delivery of the lessons with limited time in the developmental activities, and the background knowledge of the learners is restricted due to non-mastery of the pre-requisite skills and limited resources that the school could offer. Further, in the new math curriculum, some topics are too complex for the learners, requiring teachers to exert additional efforts to simplify the lessons. Teachers may struggle to cater to learners with different math proficiency levels, requiring differentiated instruction and additional remediation. The result implies that teaching effectiveness and learners' learning outcomes may be affected. To address these concerns, stakeholders should collaborate in curriculum improvement, teacher training, resource allocation, and instructional support to enhance Math education and ensure better learning experiences for learners.

Table 3
Academic Performance of Learners

No.	Interpretation	Scale	Frequency	Percentage
5	Outstanding	90-100	33	28
4	Very Satisfactory	85-89	30	25
3	Satisfactory	80-84	38	32
2	Fairly Satisfactory	75-79	19	15
1	Did Not Meet Expectations	Below 75	0	0
	Total		120	100

The data presents the academic performance of 120 learners in the second quarter of the school in Math, with 28% (33 learners) receiving a rating of 90-100, which is outstanding, 25% (30 learners) having a rating of 85-89 which is very satisfactory, 32% (38 learners) received a rating of 80-84 which is satisfactory while 15% (19 learners) got a rating of 75-79 which is fairly satisfactory. These results indicate that most learners performed at least satisfactorily, with 85% (102 out of 120) achieving a rating of 80 and above. The data suggests that most students have a solid grasp of the lessons and can meet the expected competencies. With 85% of learners receiving satisfactory to outstanding performance, the results suggest that the current teaching strategies, instructional materials, and learning interventions are effective in helping learners meet academic expectations and receive exemplary performance. However, 15% (19 learners) in the fairly satisfactory category suggest that some students may need additional educational support to improve their performance. The 15% of learners in the reasonably satisfactory category may indicate challenges in comprehension, engagement, or access to learning resources. These learners might require remedial programs, tutoring, or additional academic interventions. The distribution of scores suggests that while a good portion of learners excel, there is room for further improvement, particularly in pushing more students toward the outstanding and very satisfactory categories. The presence of learners in the lower category is attributed to various factors, including learning difficulties, lack of motivation to learn, environmental influences, lack of learning resources in developing the lesson, or the need for differentiated instruction to be employed by the teachers in teaching the subject. Since learners have varying levels of academic performance, teachers should implement differentiated teaching strategies such as scaffolding, peer mentoring, and adaptive assessments to support diverse learning needs.

Table 4
Test of Relationships

Variables Correlated	r	Computed value or t	Table Value @.05	Decision on Ho	Interpretation
Perception vs Challenges	0.89	4.667	1.214	Reject Ho	Significant Relationship (Very Strong)

Table 7 presents the results of tests examining the relationships between the extent of teachers' perception and challenges met in the implementation of the Math curriculum, revealing a correlation coefficient ($r=0.89$) that shows a very strong positive significance between the two variables. The computed value or t of 4.667 exceeded the critical table value of 1.214 at a significance level of 0.05, leading to the rejection of the null hypothesis (H_0) and confirming a statistically significant relationship between the extent of teachers' perception and challenges met in the implementation of the Math curriculum. This means teachers who perceive the Math curriculum implementation more rigorously experience more challenges. The robust positive correlation suggests that as teachers develop a deeper awareness and perception of the new Math curriculum, they become more abreast of the difficulties associated with implementing such a curriculum. These challenges usually focus on the demands of the math curriculum for learners and teachers to achieve higher learning outcomes, the readiness of the learners to tackle the activities inherent to the competencies developed,

the learning resources available, and the instructional strategies teachers employ. The data implies that highly engaged teachers in the curriculum's execution are more likely to encounter and identify obstacles that hinder effective teaching and learning. Hence, conducting of regular professional development programs and activities, mentoring, and peer collaboration during collaborative expertise activities may help teachers navigate curriculum difficulties effectively, attaining the required mastery level in teaching and learning.

IV. CONCLUSION

The study's findings confirm a significant relationship between the extent of teachers' perceptions and the challenges met in the implementation of the Math curriculum. The data implies that highly engaged teachers in the curriculum's execution are more likely to encounter and identify obstacles that hinder effective teaching and learning. Hence, it is essential for educational leaders, like the school heads and policymakers, to recognize that improving teachers' perceptions of the curriculum must be accompanied by enhanced support mechanisms, such as professional development activities, provision of adequate materials for the construction of learning resources, technical assistance in the formulation of assessment tools and constant monitoring on teaching and learning activities. Addressing these challenges can lead to a more effective and sustainable Math curriculum implementation, ultimately improving teaching effectiveness and learners' learning outcomes.

V. RECOMMENDATIONS

1. Utilize the proposed intervention plan formulated to achieve the desired goal of the study.
2. School heads should continue reinforcing teachers by recognizing their best practices, fostering collaboration, and promoting a culture of continuous professional growth.
3. School heads should organize regular training, workshops, and learning action cell sessions focused on innovative teaching strategies, differentiated instruction, and practical assessment methods to further empower teachers to implement the curriculum.
4. School Heads must ensure adequate instructional materials, technology tools, and supplementary learning resources are available. This activity can improve the efficiency of curriculum implementation and boost teacher confidence in their ability to deliver lessons effectively.
5. School heads must provide teachers with strong leadership support, mentoring programs, and collaborative planning opportunities, which can enhance their engagement and efficiency in curriculum delivery.
6. Establish a strong support system through school heads, instructional supervisors, and peer coaching to provide technical assistance, guidance, and motivation in addressing curriculum-related challenges.
7. Conduct regular or periodic assessments and feedback sessions to identify teachers' challenges and develop actionable solutions to improve lesson delivery.
8. Future researchers should replicate this study to include different locales and include other variables aside from those mentioned in this study and include the learners' survey answers to determine the significant relationship between their perceptions and performance.

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AUTHOR'S PROFILE



MRS. JESSA A. BASISTER-GONZAGA

Jessa A. Basister- Gonzaga was born in Montebello Kananga, Leyte on July 12, 1993. She was the eldest daughter of German Saquin Basister and Mary Ann Subere Abril. She is a proud wife and a mother to her daughter Jazylah Astrid B. Gonzaga. Her journey in education began at Cagbuhangin Elementary School, followed by her secondary education at Kananga National High School. She fulfilled her dream to become a teacher as she pursued her college degree and finished Bachelor in Home Economics and Livelihood Education at Eastern Visayas State University in April 06, 2016. She beamed with pride and happiness to her family as she passed the Licensure Examination for Teachers (LET) in March 26, 2017.

After she graduated her bachelor's degree, she became a substitute teacher in Aguiting Elementary School, in the year 2019. Fortunately, on August 05, 2019, she became a permanent teacher I in the Department of Education in Leyte Division and was assigned in Tagaytay Elementary School, Kananga II District.

For her professional growth she decided to enroll in Graduate Studies at Western Leyte College of Ormoc City and satisfactorily completed the academic requirements for the degree of Master of Arts in Education (MAED) with the field of specialization in Elementary Education last August 2024.

She is currently handling Grade 6 pupils at Tagaytay Elementary School, Kananga II District. Coming from a Kindergarten teacher for her, it is one of the biggest challenges to the new stage or grade level that led her to strengthen her knowledge and competence for the achievement of her Key-Stage 2 Learners. She incorporated technology into her lessons in creative ways, making learning engaging and accessible for all students. She also participates in various trainings and seminars, virtual and non-virtual in-service trainings for her professional growth and enhance her teaching skills.

"Nothing is impossible. The word itself says 'I'm possible!' - Audrey Hepburn. Specially with God.