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TEACHING COMPETENCE OF MATHEMATICS TEACHERS:BASIS FOR TEACHER ENHANCEMENT PROGRAM

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Abstract :

This study assessed the Mathematics teachers' competence in Camachiles National High School, Division of Mabalacat City during the school year 2023-2024 through the quantitative-descriptive research design. The quantitative descriptive research design was employed to present the level of competence of the Mathematics teachers along mastery of the subject matter, instructional skills, classroom management, and evaluation skills. The study is also correlational since it sought to find out the significant difference between the school head's and teachers' assessment of their teaching performance. The study further looked into the problems being met by the Mathematics teachers in terms of instructional materials, teaching strategies and assessment tools. Based on the findings of the study, an enhancement program was proposed for the Mathematics teachers in Camachiles National High School. The sources of data in the study were the 14 Mathematics teachers and their school head in Camachiles National High School who provided information to answer the sub-problems raised in the study. Weighted mean and Z-test for two sample means were utilized to treat the data statistically.

Summary of Findings 1.0 Competence Level of Mathematics Teachers Along mastery of the subject matter, the school head's rating was 3.20 and the teachers' perception was 3.50, described as "moderately competent" and "very competent," respectively. Along instructional skills, both the school heads and the teachers perceived the teachers' competence level as "moderately competent" with WM of 3.20 and 3.35, respectively. Along classroom management, the school head rated the teachers as "moderately competent" with WM of 3.30; while the teachers rated themselves as "very competent" with WM of 3.69. Along evaluation skills, the competence level of the teachers was perceived to be "moderately competent" by the school head with WM of 3.30; while the teachers perceived their competence level as "very competent" with WM of 3.76. In summary, the school head perceived the competence level of the teachers as "moderately competent" with overall WM of 3.25; while the Mathematics teachers perceived themselves as "very competent" with overall WM of 3.58. 2.0 Difference Between School Head's and the Teachers' Assessment of Teaching Performance There is a significant difference between the school head's and the teachers' assessment of teaching performance in terms of evaluation skills as evidenced by the computed value which is less than 0.05 level of significance. There is no significant difference between the school head's and the teachers' assessment of teaching performance in terms of mastery of subject matter, instructional skills and classroom management as evidenced by the computed values which are more than 0.05 level of significance. 3.0 Problems Met by the Mathematics Teachers in Terms of Certain Variables In terms of instructional materials, three problem indicators were "highly serious" with weighted means of 4.53, 4.62 and 4.69; two were "very serious" with weighted means of 3.62 and 3.54; and one was "moderately serious" with weighted mean of 3.31. The average weighted mean was 3.85 for descriptive equivalent of "very serious." In terms of teaching strategies, three indicators were "highly serious" with weighted means of 4.69, 4.54 and 4.62; three were "very serious" with weighted means that ranged from 3.54 to 4.46; and four were "moderately serious with weighted means that ranged from 2.69 to 3.46. In terms of assessment tools, four indicators were "very serious" with weighted means that ranged from 3.54 to 3.92; and six were "moderately serious" with weighted means that ranged from 2.6 9 to 3.46. In summary, the overall weighted mean was 3.69 for descriptive equivalent of "very serious." 4.0 Enhancement Program for Mathematics Teachers An enhancement program was proposed for the Mathematics teachers in Camachiles National High School, Division of Mabalacat City to enhance the teachers' competence.

Based on the findings of this study, the following conclusions were drawn: 1. Generally, the Mathematics teachers are moderately competent in terms of mastery of subject matter, instructional skills, classroom management, and evaluation skills which

indicates that they demonstrate moderate success in performing instructional and other duties in teaching. 2. There is a significant difference between the teachers' performance as assessed by the school head and the Mathematics teachers in terms of evaluation skills; however, there are no significant differences between the respondents in terms of mastery of subject matter, instructional skills and classroom management. 3. Problems met by the teachers in teaching Mathematics are inadequate instructional materials for online teaching, integration and use of different technologies, scarce media resources to support Mathematics instruction during the pandemic, lack of prerequisite knowledge of students, need of students for after school tutoring, and homework left undone or late for submission. 4. The proposed enhancement program features the following topics: establishing engaging learning environments, active and collaborative learning, communities of practice, online learning communities, and enhancing instruction and activity in online learning environments.

On the basis of the findings and conclusions drawn, the following recommendations were offered: 1. The proposed enhancement program should be considered for implementation to enhance the competence level of the Mathematics teachers. 2. The proposed enhancement program should be evaluated regularly for further improvement and for the teachers to keep abreast of current developments in Mathematics education. 3. The school administration should offer in-service leadership training to all teachers for their professional growth and development. 4. Similar studies may be conducted on a wider scope to validate the findings of the study.

Keywords: teaching competence, teacher enhancement program

INTRODUCTION

The tremendous task of education is the development of a learner into a whole person, a complete human being capable of understanding his own complexity and his intricate society. The teacher, who is in charge of this task needs to cope with the challenges of the modern times. He has to be equipped with the resources vital in arousing and sustaining students' interest, in facilitating the learning process, and in evaluating the learning outcomes.

Quality education is first and foremost a function of instruction. For education to attain and sustain its quality, it should be coupled with the best preparation for excellent instruction. It is emphasized that to be an excellent high school teacher, one should both have full command of the subject and full knowledge of the teaching-learning process. The teacher, therefore, should not only have mastery of the subject matter, but also an in-depth understanding of the mind set and standards of students within the class.

The quality of education received by children depends on the intelligence, knowledge and professional skills of their teachers. This in turn depends on the selection of the highest-achieving candidates and high quality inspirational pre-service, support in induction and continuing professional in-service education. In summary, there are many issues and concerns in teacher education but little practical research has been done to identify good practice.

Oriarte (2023) emphasized that the Sustainable Development Goals is the global target for the 2030 Agenda for Sustainable Development Quality Education. It is aimed to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. It is aimed that by 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes and to show the commitment to nondiscriminatory education outcomes.

Teacher quality is a key determinant of student achievement and strong content knowledge is crucial to effective teaching. Laverty (2015) stressed that successfully teaching all students to reach high standards of mathematics learning requires a depth of content knowledge, conceptual understanding, and faculty with core skills that exceed the level of many current elementary and secondary school teachers. Furthermore, Lucenario (2016) emphasized that professional development is a key strategy for upgrading the skills of the existing workforce, particularly for teachers who are not highly qualified. To date, department-sponsored efforts to improve the content knowledge and instructional practice of mathematics teachers have been limited in scope but very well received.

Mathematics is concerned with the method used in the teaching and learning process in addition to issues encountered in the cognitive domain. The Philippines' education system is still dominated by traditional mathematics teaching, which frequently overlooks the goal of mathematics education – to prepare students to deal successfully with real-life situations. This affects the declining performance of the students in their overall mathematical ability, especially in problem-solving.

The teachers' role is to influence, engage, commit, and support the students toward a positive outlook of Mathematics as a discipline. This suggests that students' understanding, acknowledgment and achievement in the discipline primarily depend on the teachers (Libiado and Canuto, 2023).

Despite the dramatic transformations throughout the society over the last half-century, teaching methods in Mathematics classes have remained virtually unchanged. Classroom practice has still hardly begun to capitalize on the many dimensions of the learning process. The basic teaching style in mathematics classroom remains essentially what it was two generations ago. The approach used for the lessons was numbingly predictable: (1) a review of previous material and homework; (2) a problem illustration by the teacher; (3) drill on low-level procedures that initiate those demonstrated by the teacher; (4) supervised seat work by students, often in isolation; (5) checking on seatwork problems; and (6) assignment or homework. Not one did students construct a mathematical proof.

If the core of Mathematics is about inquiry, then too many of today's Mathematics classrooms come up short. Students are crippled by content limited to the "what"; they get only a little bit about the "how" or "how else"; and not nearly enough about the "why", missing almost entirely is "why should I care?" It is hard to imagine that students in their classes are gaining the conceptual and problem-solving skills they need to function effectively as workers and citizens in today's world, a world that increasingly depends on mathematics (Li and Schoenfeld, 2019).

Over the past decade, researchers have been made to identify the factors which give rise to good practice in mathematics teaching and learning. These involved monitoring the progress of pupils in mathematics over a number of years, using value-added analysis to identify pupils, classes, and school which over-or underperformed and determining the key factors in teaching and other strategies which made the difference.

According to Graven (2016), there are five major factors to strengthen Mathematics education. These are the following: (1) reform efforts have sharply focused the attention of the people on education as a public issue; (2) the nation now has a surplus of resources to invest in education; (3) a coming demographic shift in the teaching force offers an unparalleled chance to plan for and make changes at the core of education itself; (4) the schools can now put to work what educators have learned in the past generation about curriculum, high standards, effective teaching, assessment, and how children learn; and (5) the rising generation of college graduates is once again showing an interest in teaching as a profession. The nation must capitalize on the consequence of these factors to improve mathematics teaching.

Teacher quality is a key determinant of student achievement and strong content knowledge is crucial to effective teaching. Successfully teaching all students to reach high standards of mathematics learning requires a depth of content knowledge, conceptual understanding, and faculty with core skills that exceed the level of many current elementary and secondary school teachers. Professional development is a key strategy for upgrading the skills of the existing workforce, particularly for teachers who are not highly qualified. To date, department-sponsored efforts to improve the content knowledge and instructional practice of mathematics teachers have been limited in scope but very well received.

The responsibilities that teachers carry out are quite complex, and as a result, they need to be able to consider and adjust to a variety of classroom situations. In order to effect change in the classroom, educators need to assume a leadership position and assess their own proficiency, responsibility and lifetime learning pre-service training. Teachers must be able to enable the establishment of learning environments that are conducive to learning to accomplish the national goals of enhancing students' mathematical competencies. The ability of teachers to transfer knowledge, which is based on their teaching competencies, must be considered. Considering the complexity of the teachers' tasks, it is necessary to see teachers' competence as a structure that consists of subject-didactic pedagogical competence which is an essential component of mathematics teachers' activity (Gerance, 2023).

The teaching of Mathematics requires significant innovation, especially because this subject is often perceived as difficult and complex. The study of Geva and Labo (2023) related the difficulty in school mathematics to the nature of Mathematics itself and the nature of Mathematics teaching and learning. In innovating Mathematics teaching, more students will find it easier and simpler which will increase their interest towards it.

According to Flores (2019), a professional Mathematics teacher is one who helps the students develop in them the love for numbers and make use of them with ease and confidence. This expectancy would require of the teacher proficiency and competence in number manipulations and problem solving. This expectancy will require him to analyze, assess, relate, and implement existing mathematics curricula and develop new ones. As such, he or she is expected to devise, plan, organize, orchestrate, and carry out Mathematics teaching. This also includes creation of rich spectrum of teaching and learning situation discussing curricula and justifying teaching and learning activities with students.

Development program for teachers of Mathematics seek to broaden and deepen mathematical knowledge and to integrate this with study of pupils' learning and with teaching approaches. The notion of unpacking Mathematics to focus on the process of doing Mathematics rather than only on learning outcomes is crucial. Some courses may start with introducing mathematical ideas from the school curriculum and ask teachers to analyze those ideas from the learners perspective; others may use pupils' mathematical thinking as a springboard to motivate the teachers' learning of Mathematics; still others might begin with elements of teaching practice or curricula and move towards a consideration of their potential influence or progressing mathematical thinking.

Capraro (2018) stated that it is essential that Mathematics teachers have sufficient subject knowledge to challenge and develop the full range of pupils whom they teach, otherwise pupils will not gain then full benefit of their education. Broadening and deepening mathematical knowledge and understanding means teachers can become increasingly aware of key ideas, new ways to promote mathematical reasoning as appropriate to diverse pupils, different representations and links within Mathematics, as well as links to other subjects where Mathematics plays a role. It also encourages a positive attitude to Mathematics among teachers, which is crucial to their continued enthusiasm for the subject.

For teachers of Mathematics an important part of broadening their knowledge is appreciating how pupils learn Mathematics and the potential obstacles to learning that they are likely to face. Improving awareness of the different methods of teaching Mathematics allows teachers to become even better at teaching through a process of reflection and self-critic. Finally, teachers have the opportunity to reflect upon the different approaches to the Mathematics curriculum; how it is structured in terms of progression in any one topic area, the between topics and the way the topics are introduced and revisited in different contexts.

In line with this, in the absence of well-designed development programs, teachers have been expected to learn how to improve their teaching on their own, learn from trial and error, and individually seek the required professional development. In this aspect, development programs for teachers have always been essentially important.

Mathematics teachers believe that teacher quality is a key determinant of student achievement and having a strong content knowledge is crucial to effective teaching. Hence, this researcher conducted this study to assess the Mathematics teachers' competence in relation to students' performance in Camachiles National High School, Division of Mabalacat City during the school year 2023-2024.

Statement of the Problem

This study assessed the Mathematics teachers' competence in Camachiles National High School, Division of Mabalacat City during the school year 2023-2024.

Specifically, it sought to answer the following sub-problems:

1. How is the competence level of the Mathematics teachers described as perceived by the school head and themselves along the following:
   - 1.1 Mastery of the subject matter;
   - 1.2 Instructional skills;
   - 1.3 Classroom management; and
   - 1.4 Evaluation skills?
2. Is there a significant difference between the school head's and teachers' assessment of their teaching performance?
3. What are the problems met by the Mathematics teachers in terms of the following areas:

3.1 Instructional materials;
3.2 Teaching strategies; and
3.3 Assessment tools?

4. What teacher enhancement program may be proposed for the Mathematics teachers in Camachiles National High School?

METHODOLOGY

This chapter presents the research design, the sources of data, instrumentation and data collection and the tools for data analysis.

Research Design

This study assessed the Mathematics teachers' competence in Camachiles National High School, Division of Mabalacat City during the school year 2023-2024 through the quantitative-descriptive research design.

The quantitative-descriptive research design was employed to present the level of competence of the Mathematics teachers along mastery of the subject matter, instructional skills, classroom management, and evaluation skills. The study is also correlational since it sought to find out the significant difference between the school head's and teachers' assessment of their teaching performance. The study further looked into the problems met by the Mathematics teachers in terms of instructional materials, teaching strategies and assessment tools.

Based on the findings of the study, an enhancement program was proposed for the Mathematics teachers in Camachiles National High School.

Sources of Data

The sources of data in the study were the 14 Mathematics teachers and their school head in Camachiles National High School who provided information to answer the sub-problems raised in the study.

Instrumentation and Data Collection

The main data gathering tool of this study was a constructed questionnaire which consists of two parts to gather the information needed for the study. Part I focused on the level of competence of the Mathematics teachers as perceived by the school head and themselves along mastery of the subject matter, instructional skills, classroom management, and evaluation skills. Part II looked into the problems being met by the teachers in the teaching of Mathematics in terms of instructional materials, teaching strategies and assessment tools.

The researcher personally distributed the questionnaires herself. After the accomplished questionnaires are retrieved, the responses of the respondents were tabulated and interpreted based on appropriate statistical tools.

Tools for Data Analysis

The following tools were used to treat the data statistically:

1. Weighted Mean

This was employed to answer sub-problem numbers 1 and 3 on the competence level of the Mathematics teachers and the problems being met by them.

The formula is:

$$WM = \frac{\Sigma fx}{N}$$

Where:
WM = Weighted Mean
Σfx = sum of the products per column
N = number of respondents

The interpretation of the weighted mean for each sub-problem is shown below:

Point Values	Statistical Limits	Descriptive Equivalent (DE)	
		For sub-problem #1	For sub-problem #3
5	4.50-5.00	Highly Competent (HC)	Highly Serious (HS)
4	3.50-4.49	Very Competent (VC)	Very Serious (VS)
3	2.50-3.49	Moderately Competent (MC)	Moderately Serious (MS)
2	1.50-2.49	Slightly Competent (SC)	Slightly Serious (SS)
1	1.00-1.49	Not Competent (NC)	Not a Problem (NP)

Z-test for Two Sample Means

To answer sub-problem number 2 regarding the difference between the school heads' and teachers' assessment of their teaching performance in terms of mastery of the subject matter, instructional skills, classroom management, and evaluation skills, the z-test for two sample means was used. The level of significance is set at .05. Computations were carried out using Microsoft Excel.

RESULTS AND DISCUSSION

This chapter presents the data gathered and their analysis and interpretation to answer the sub-problems raised in the study.

Competence Level of Mathematics Teachers

This section presents the competence level of the Mathematics teachers in Camachiles National High School, Division of Mabalacat City as perceived by their school head and themselves along mastery of the subject matter, instructional skills, classroom management, and evaluation skills to answer sub-problem number 1.

The data are presented in Tables 1A, 1B, 1C, and 1D.

Mastery of the Subject Matter

This section presents the competence level of the Mathematics teachers as perceived by their school head and themselves along mastery of the subject matter. Mastery of the subject matter refers to the possession of great skill, technique or knowledge that makes one master a subject. It is the teachers' knowledge of his subject. It is an evidence of personal and professional growth of the teacher.

Table 1A presents the data.

TABLE 1A
Competence Level of the Mathematics Teachers Along Mastery of the Subject Matter

Mastery of the Subject Matter	School Head		Math Teachers	
	WM	DE	WM	DE
The teacher…				
1. Teaches the subject matter in clear and simple manner.	4.00	VC	4.43	VC
2. Emphasizes difficult part of the lesson.	3.00	MC	3.43	MC
3. Explains the lesson by citing examples and situations.	3.00	MC	3.71	VC
4. Defines difficult terms when asked.	3.00	MC	3.36	MC
5. Relates subject matter to previous topics and areas of interest.	3.00	MC	2.71	MC
6. Is knowledgeable enough to relate lessons to other subjects.	3.00	MC	3.36	MC
7. Answers questions directly and straight to the point.	3.00	MC	3.29	MC
8. Cites current and timely information on the subject.	3.00	MC	3.43	MC
9. Shows a full grasp of the lesson taught each day.	3.00	MC	3.57	VC
10. Reflects mastery of the entire subject he/she teaches.	4.00	VC	3.71	VC
OVERALL WM	**3.20**	**MC**	**3.50**	**VC**

Legend: WM = Weighted Mean

Point Values	Statistical Limits	Descriptive Equivalent (DE)
5	4.50-5.00	Highly Competent (HC)
4	3.50-4.49	Very Competent (VC)
3	2.50-3.49	Moderately Competent (MC)
2	1.50-2.49	Slightly Competent (SC)
1	1.00-1.49	Not Competent (NC)

It was revealed in Table 1A that the school head and the Mathematics teachers perceived the competence level of the teachers as "moderately competent" and "very competent" respectively along mastery of the subject matter with overall weighted mean of 3.20 from the school head and 3.50 from the teachers. The school head perceived the Mathematics teachers' competence level to be "moderately competent" in 8 out of 10 indicators and "very competent" in "The teacher teaches the subject matter in clear and simple matter" and "The teacher reflects mastery of the entire subject he/she teaches" the same as the perceptions of the teachers along those indicators. However, the teachers believed they are "very competent" in "The teacher explains the lesson by citing examples and situations" and "The teacher shows a full grasp of the lesson taught."

Flores (2019) asserted that one of the most important variables that enhance teachers' effectiveness is the mastery of the subject matter. Thus, with an overall WM of 3.20, the school head perceived that the Mathematics teachers are "moderately competent" along mastery of the subject matter. However, the teachers believed they are "very competent" with overall WM of 3.50.

Instructional Skills

This section presents the competence level of the Mathematics teachers as perceived by the school head and the Mathematics teachers along instructional skills.

Table 1B shows the data.

TABLE 1B
Competence Level of the Mathematics Teachers Along Instructional Skills

Instructional Skills	School Head		Math Teachers	
	WM	DE	WM	DE
The teacher…				
1. Organizes and presents subject matter clearly and coherently.	3.00	MC	3.57	VC
2. Presents the lesson systematically and analytically.	3.00	MC	3.43	MC
3. Uses languages effectively in expressing ideas in class discussions.	3.00	MC	3.29	MC
4. Encourages the students to think and clarify lessons through effective questioning towards the students.	3.00	MC	3.21	MC
5. Adjusts teaching methods to students' needs, interest and abilities.	3.00	MC	3.57	VC
6. Uses different teaching techniques, approaches, strategies to make the lesson interesting and meaningful.	3.00	MC	3.71	VC
7. Relates the lesson to the existing conditions and real life situation.	3.00	MC	2.86	MC
8. Utilizes instructional materials effectively to develop critical thinking and creativity.	4.00	MC	3.36	MC

9. Analyzes and identifies specific learning tasks.	3.00	MC	2.79	MC
10. Motivates the students by asking questions effectively to develop critical thinking and creativity.	4.00	MC	3.71	VC
OVERALL WM	**3.20**	**MC**	**3.35**	**MC**

Legend: WM = Weighted Mean

Point Values	Statistical Limits	Descriptive Equivalent (DE)
5	4.50-5.00	Highly Competent (HC)
4	3.50-4.49	Very Competent (VC)
3	2.50-3.49	Moderately Competent (MC)
2	1.50-2.49	Slightly Competent (SC)
1	1.00-1.49	Not Competent (NC)

Table 1B indicates that in all of the ten indicators along instructional skills, both groups of respondents perceived that the competence level of the Mathematics teachers is "moderately competent" with an overall WM of 3.20 and 3.34 from the school head and the teachers, respectively. These results imply that teachers employing moderate instructional skills do not necessarily lead to increased mastery of lessons. Better learning happens in a dynamic setting in which teachers offer explicit active instruction.

Classroom Management

Classroom management plays a critical role in creating an environment conducive to learning. It consists of practices and procedures that teachers apply to establish an environment conducive to instruction and learning.

Table 1C presents the competence level of the Mathematics teachers along classroom management.

Classroom management involves setting clear expectations, establishing routines and fostering a culture of respect and cooperation among students. In addition, classroom teachers are not only educators but also mentors who guide students toward personal growth and academic success. The school head wanted to give emphasis on the role of teachers in classroom management, thus, the difference in perceptions of the respondents.

TABLE 1C
Competence Level of the Mathematics Teachers Along Classroom Management

Classroom management	**School Head**		**Math Teachers**	
	WM	**DE**	**WM**	**DE**
The teacher…				
1. Commands respect from the students.	4.00	VC	3.57	VC
2. Shows a great deal of patience towards the students.	4.00	VC	3.71	VC
3. Starts learning activities on time.	3.00	MC	4.43	VC
4. Comes to class early and leaves on time.	3.00	MC	4.36	VC
5. Utilizes class periods productively.	3.00	MC	3.29	MC
6. Maintains students' interest in the lessons and class discussion.	3.00	MC	3.43	MC
7. Establishes authority in the classroom effectively.	3.00	MC	3.36	MC
8. Achieves teaching objectives to optimum degree possible for the particular subject, lesson, or activity within a reasonable time frame.	3.00	MC	3.21	MC
9. Handles disciplinary problems effectively.	3.00	MC	2.86	MC
10. Makes classroom atmosphere cordial and cooperative to enhance the learning process.	4.00	VC	4.36	VC
OVERALL WM	**3.30**	**MC**	**3.69**	**VC**

Legend: WM = Weighted Mean

Point Values	Statistical Limits	Descriptive Equivalent (DE)
5	4.50-5.00	Highly Competent (HC)
4	3.50-4.49	Very Competent (VC)
3	2.50-3.49	Moderately Competent (MC)
2	1.50-2.49	Slightly Competent (SC)
1	1.00-1.49	Not Competent (NC)

As presented in Table 1C, the school head perceived that the Mathematics teachers are "moderately competent" along classroom management as shown by the overall WM of 3.30; however, the teachers themselves believed they are "very competent" along this area with overall WM of 3.69.

This result implies that classroom management is adequate; however, since success in the classroom environment depends on the teachers' ability to maintain an environment that encourages and supports learning, there is a need for more enhanced classroom management.

Evaluation Skills

Evaluation skills refer to a set of abilities that enables teachers to analyze information accurately and come to sound conclusions. These skills include critical thinking, problem-solving, data interpretation, and logical reasoning.

Evaluation skills allow teachers to make informed decisions; determine the trustworthiness and relevance of sources, ensuring they are using quality evidence in their research.

This section presents the competence level of the Mathematics teachers along evaluation skills. Table 1D shows the data.

TABLE 1D

Competence Level of the Mathematics Teachers Along Evaluation Skills

Evaluation Skills	**School Head**		**Math Teachers**	
	WM	**DE**	**WM**	**DE**
The teacher…				
1. Evaluates students' performances fairly and uses adequate and accurate standard measures of evaluation.	3.00	MC	3.57	VC
2. Provides evaluative activities appropriate to students' abilities, interests, and needs.	3.00	MC	3.57	VC
3. Analyzes and interprets evaluation results skillfully.	3.00	MC	3.43	MC
4. Utilizes evaluation results as a basis for improving instruction.	3.00	MC	4.36	VC
5. Uses different methods in evaluating students' learning aligned to the learning objectives.	3.00	MC	3.71	VC
6. Evaluates performance of the students on the basis of the course objectives through discussions, quizzes, and major examinations.	4.00	VC	4.36	VC
7. Gives grades on the basis of students' performance.	3.00	MC	3.71	VC
8. Treats each student fairly.	4.00	VC	3.57	VC
9. Exercises no favoritism.	4.00	VC	3.71	VC
10. Acts accordingly to own intellectual judgment.	3.00	MC	3.57	VC
OVERALL WM	**3.30**	**MC**	**3.76**	**VC**

Legend: WM = Weighted Mean

Point Values	Statistical Limits	Descriptive Equivalent (DE)
5	4.50-5.00	Highly Competent (HC)
4	3.50-4.49	Very Competent (VC)
3	2.50-3.49	Moderately Competent (MC)
2	1.50-2.49	Slightly Competent (SC)
1	1.00-1.49	Not Competent (NC)

As presented in Table 1D, the school head and the Mathematics teachers differ in their perceptions of the competence level of the teachers in six out of ten items along evaluation skills. The school head perceived that the teachers are "moderately competent" in the following: evaluate students' performance fairly and use adequate and accurate standard measures of evaluation (WM=3.00); provide evaluative activities appropriate to students' abilities, interests and needs (WM=3.00); utilize evaluation results as a basis for improving instruction (WM=3.00); use different methods in evaluating students' learning aligned to the learning objectives (WM=3.00); give grades on the basis of students' performance (WM=3.00); and act accordingly to own intellectual judgment (WM=3.00). The teachers perceived themselves to be "very competent" in the aforementioned items with WM that ranged from 3.57 to 4.36.

With overall WM of 3.30 described as "moderately competent" from the school head and 3.76 described as "very competent" from the Mathematics teachers, these result imply that the school heads are moderately satisfied with the evaluation skills of the Mathematics teachers. The Mathematics teachers should deal with the evaluation of the learners' actual performance with fairness and variety of techniques to harness the utmost capacity of learners.

SUMMARY TABLE

Indicators	**School Head**		**Math Teachers**	
	WM	**DE**	**WM**	**DE**
Mastery of Subject Matter	3.20	MC	3.50	VC
Instructional Skills	3.20	MC	3.35	MC
Classroom Management	3.30	MC	3.69	VC
Evaluation Skills	3.30	MC	3.76	VC
OVERALL WM	**3.25**	**MC**	**3.58**	**VC**

Legend: WM = Weighted Mean

Point Values	Statistical Limits	Descriptive Equivalent (DE)
5	4.50-5.00	Highly Competent (HC)
4	3.50-4.49	Very Competent (VC)
3	2.50-3.49	Moderately Competent (MC)
2	1.50-2.49	Slightly Competent (SC)
1	1.00-1.49	Not Competent (NC)

As presented in the Summary Table, although there was a difference in the perceptions of the school head and the Mathematics teachers along mastery of subject matter, classroom management and evaluation skills, their perceptions along instructional skills is "moderately competent." These results imply that the Mathematics teachers' competencies are adequate; however, there is still room for improvement to further enhance their competence level in Mathematics.

Difference Between the School Head's and Teachers'
Assessment of Teaching Performance

This section presents the difference between the school head's and the teachers' assessment of the latter's performance to answer sub-problem number 2. The results are presented in Table 2.

Table 2
Difference Between School Heads' and Teachers' Assessment of Teaching Performance

Assessment of teaching performance terms of:	Mean		Variance		p-value
	School Heads	Math Teachers	School Heads	Math Teachers	
a. mastery of subject matter	3.26	3.50	0.19	0.18	0.11579
b. instructional skills	3.22	3.35	0.18	0.10	0.37186
c. classroom management	3.29	3.66	0.23	0.30	0.12132
d. evaluation skills	3.34	3.76	0.20	0.11	0.01371*

**significant difference at .05 level*

As presented in Table 2, computed p-values in terms of mastery of subject matter, instructional skills and classroom management were 0.11579, .037186 and 0.12132, respectively more than 0.05 level of significance which means there is no significant difference between the school head's and teachers' assessment of teaching performance of the latter. However, with computed p-value of 0.01371 in terms of evaluation skills, there is significant difference between the school head's and the teachers' assessment of teaching performance of the latter.

Problems Met By the Mathematics Teachers in Terms of Certain Variables

This section presents the problems being met by the Mathematics teachers in Camachiles National High School, Division of Mabalacat City in terms of instructional materials, teaching strategies and assessment tools to answer sub-problem number 3.

The data are shown in Tables 3A, 3B, and 3C.

Instructional Materials

Table 3A shows the problems being met by the Mathematics teachers in terms of instructional materials.

TABLE 3A
Problems Met By the Mathematics Teachers in Terms of Instructional Materials

Indicators	WM	DE
• Inadequate instructional materials for online teaching	4.53	HS
• Integration and use of different technologies	4.62	HS
• Traditional use of textbooks and printed handouts	3.31	MS
• New curricular materials	3.62	VS
• Students' access to technology outside of class	2.76	MS
• Scarce media resources to support mathematics instruction during the pandemic	4.69	HS
• Not enough time for teachers to adapt to the new technology	3.54	VS
OVERALL WM	**3.85**	**VS**

Legend: WM=Weighted Mean

Point Values	Statistical Limits	Descriptive Equivalent (DE)
5	4.50-5.00	Highly Serious (HS)
4	3.50-4.49	Very Serious (VS)
3	2.50-3.49	Moderately Serious (MS)
2	1.50-2.49	Slightly Serious (SS)
1	1.00-1.49	Not a Problem (NP)

Inadequate instructional materials for online teaching, integration and use of different technologies and scarce media resources to support Mathematics instruction during the pandemic are considered "highly serious" problems as evidenced by the weighted means of 4.53, 4.62 and 4.69, respectively. Most Mathematics teachers working today learned Mathematics without the use of technology. A few were pioneers as computers began entering the classroom, but in mathematics, as in other subjects, the promise of computer technology has not been fully realized. Unlike other subjects, a particular technology has had and centuries to have a profound influence on mathematics instruction.

New curriculum materials and not enough time for teachers to adapt to new technology were considered "very serious" problems with weighted means of 3.62 and 3.54, respectively. Teachers need time and guidance to examine new offerings. In many cases, it may be best to adopt materials tentatively and made adjustment as teachers gain direct experience while working with students. Classes of students actively discovering concepts while using technology and experimentation are better suited for longer time periods than more traditional lecture-format classes.

These results imply that before adopting a change to longer class periods, an assessment of teachers' willingness and ability to lecture less and involve students more is advised. Effective staff development addressing new techniques will likely be necessary and adequate planning time is needed as teachers adopt new methods.

Teaching Strategies

Table 3B shows the problems met by the Mathematics teachers in terms of teaching strategies.

TABLE 3B
Problems Met By the Mathematics Teachers in Terms of Teaching Strategies

Indicators	WM	DE
• Students lack prerequisite knowledge	4.69	HS
• Students do not see connections of Math to real life	3.46	MS
• Difficulty in determining if students are cheating	2.69	MS
• Some students believe they are not good in Math	3.31	MS
• Teachers' varying instruction	4.46	VS
• Dealing with student absences	4.38	VS
• Not enough time to compute grades	2.77	MS
• Some students do not have school tutoring	4.54	HS
• Having students of different abilities in class	3.54	VS
• Homework left undone or late for submission	4.62	HS
OVERALL WM	**3.87**	**VS**

Legend: WM=Weighted Mean

Point Values	Statistical Limits	Descriptive Equivalent (DE)
5	4.50-5.00	Highly Serious (HS)
4	3.50-4.49	Very Serious (VS)
3	2.50-3.49	Moderately Serious (MS)
2	1.50-2.49	Slightly Serious (SS)
1	1.00-1.49	Not a Problem (NP)

As presented in Table 3B, "highly serious" problems met by the Mathematics teachers include students having no or less prerequisite knowledge in Mathematics, some students need after school tutoring and homework left undone or late for submission. Problems on prerequisite knowledge had a weighted mean of 4.69 interpreted as "highly serious". Mathematics curriculum often builds on information learned in previous years. If a student does not have the required prerequisite knowledge, then a teacher is left with the choice of either remediation or forging ahead and covering material the student might not understand.

Another "highly serious" problem is the need of some students for after school tutoring with weighted mean of 4.54. Mathematics teachers typically have a lot more demands on their before and after school time from students who are requesting extra help. This requires a greater dedication on their part in many ways to help these students understand and master the topics being learned.

Some students do not do their homework or others simply copy from others, thus the late submission for a weighted mean of 4.62 described as "highly serious" problem. Mathematics curriculum often requires daily practice and review for mastery. Therefore, the implication is that the completion of daily homework assignments is essential to learning the material. Students who do not complete their homework or who copy from other students often struggle at test time. Dealing with this use is often very difficult for mathematics teachers.

Teachers' varying instruction is considered as a "very serious" problem with a weighted mean of 4.46. The teaching of Mathematics does not lend itself to a great deal of varied instruction. While teachers can have students present materials, work in small groups for certain topics, and create multimedia projects dealing with Mathematics, the norm of a Mathematics classroom is direct instruction followed by a period of solving problems.

Dealing with student absences is another "very serious" problem with a weighted mean of 4.38. When a student misses a Mathematics class at key instructional points, it can be difficult for them to catch up. For example, if a student is absent on the five few days when a new topic is being discussed, a teacher will be faced with the issue of helping that student learn the material on his own.

Having students of different abilities in class as evidenced by the weighted mean of 3.54 is also a "very serious" problem. Mathematics teachers often have classes with students of varying ability levels within the same classroom. This might result from gaps in prerequisite knowledge or students' individual feelings in regard to their ability to learn Mathematics. Teachers must decide how to meet the needs of the individual students in their classrooms.

Some students do not see the connections of Mathematics to real life. This is considered a "moderately serious" problem with weighted mean of 3.46. Consumer Mathematics is easily connected to daily life. However, it can often be hard for students to see the connection between their lives and geometry, trigonometry, and even basic algebra. When students do not see why they have to learn a topic, this impacts their motivation and retention. Teachers can get around this by giving real-life examples showing where students might use the Mathematics concepts being taught.

Difficulty in determining if students are cheating is another "moderately serious" problem with weighted mean of 2.69. Unlike courses where students have to write essays or create detailed reports, Mathematics is often reduced to solving problems. It can be difficult for a mathematics teacher to determine if students are cheating. Typically, Mathematics teachers use wrong answers and incorrect solving methods to determine if students did, in fact, cheat.

Some students have come to believe that they are just not good at Mathematics which is considered as a "moderately serious" problem with weighted mean of 3.31. This type of attitude can result in students failing to even try to learn certain topics. Fighting this self-esteem-related issue can be difficult, but pulling students aside individually to reassure them can help them overcome Math block. Mathematics teachers can boost student confidence with strategies.

Mathematics teachers, more than teachers in many other curriculum areas, need to keep up with the daily grading of assignments which poses to be a 'moderately serious" problem with weighted mean of 2.77. It does not help a student to have a paper returned a few weeks after the unit has been completed. Only by seeing what mistakes they have made and working to correct those will they be able to use that information effectively. Giving immediate feedback is particularly important for Mathematics teachers.

Assessment Tools

Table 3C shows the problems being met by the Mathematics teachers in terms of assessment tools.

TABLE 3C

Problems Being Met By the Mathematics Teachers in Terms of Assessment Tools

Indicators	WM	DE
• Assessing only students' knowledge of specific facts and isolated skills	3.23	MS
• Comparing students' performance with that of other students	3.62	VS
• Making the assessment process secret, exclusive and fixed	3.54	VS
• Developing assessment by oneself	3.69	VS
• Using assessment to filter and select students out of the opportunities to learn Mathematics	3.92	VS
• Basing inferences of restricted or single sources of evidence	2.69	MS
• Regarding assessment as sporadic and conclusive	3.31	MS
• Holding only a few accountable for assessment results	3.38	MS
• Simply indicating whether or not answers are correct	3.46	MS
• Relying on over-simplified evidence from a simple test or test format	2.77	MS
OVERALL WM	**3.36**	**MS**

Legend: WM=Weighted Mean

Point Values	Statistical Limits	Descriptive Equivalent (DE)
5	4.50-5.00	Highly Serious (HS)
4	3.50-4.49	Very Serious (VS)
3	2.50-3.49	Moderately Serious (MS)
2	1.50-2.49	Slightly Serious (SS)
1	1.00-1.49	Not a Problem (NP)

As shown in Table 3C, six out of 10 problems being met by the Mathematics teachers in terms of assessment tools were considered "moderately serious" as evidenced by their weighted means ranging from 2.69 to 3.46. These were assessing only students' knowledge of specific facts and isolated skills, basing inferences on restricted or single sources of evidence, regarding assessment as sporadic and conclusive, holding only a few accountable for assessment results, simply indicating whether or not answers are not correct, and relying on over-simplified evidence from a simple test or test format.

Comparing students' performance with that of other students, making the assessment process secret, exclusive and fixed, developing assessment by oneself, and using assessment to filter and select students out of the opportunities to learn mathematics are all considered to be very serious problems being met by the mathematics teachers as shown by the weighted means of 3.63, 3.54, 3.67 and 3.58 respectively.

Overall, the average weighted mean is 3.36 which has a descriptive equivalent of "moderately serious." Students experience a wide variety of assessment methods and become more informed and active participant in the assessment process.

These imply that the goals and purposes of assessment are considered as assessments are constructed, implemented and revised, and as the results of assessments are used in making instructional decisions, monitoring student progress, evaluating student achievement, and evaluating programs.

SUMMARY TABLE

Variables	WM	DE
• Instructional Materials	3.85	VS
• Teaching Strategies	3.87	VS
• Assessment Tools	3.36	MS
OVERALL WM	**3.69**	**VS**

As presented in the Summary Table, the Mathematics teachers met "very serious" problems in terms of instructional materials (WM=3.85) and teaching strategies (WM=3.87); while in terms of assessment tools, they considered problems met as "moderately serious" with weighted mean of 3.36, for overall weighted mean of 3.69 for descriptive equivalent of "very serious."

Proposed Enhancement Program for the Mathematics Teachers

An enhancement program was proposed for the Mathematics teachers to enhance their competence in teaching to answer sub-problem number 4.

The proposed enhancement program focused on quality outcomes, teaching effectiveness, presentation skills, professional development of Mathematics teachers, and other program.

SUMMARY

This study assessed the Mathematics teachers' competence in Camachiles National High School, Division of Mabalacat City during the school year 2023-2024 through the quantitative-descriptive research design.

The quantitative-descriptive research design was employed to present the level of competence of the Mathematics teachers along mastery of the subject matter, instructional skills, classroom management, and evaluation skills. The study is also correlational since it sought to find out the significant difference between the school head's and teachers' assessment of their teaching performance. The study further looked into the problems met by the Mathematics teachers in terms of instructional materials, teaching strategies and assessment tools.

Based on the findings of the study, an enhancement program was proposed for the Mathematics teachers in Camachiles National High School.

The sources of data in the study were the 14 Mathematics teachers and their school head in Camachiles National High School who provided information to answer the sub-problems raised in the study.

Weighted mean and Z-test for two sample means were utilized to treat the data statistically.

Summary of Findings

1.0 Competence Level of Mathematics Teachers

1.1 Along mastery of the subject matter, the school head's rating was 3.20 and the teachers' perception was 3.50, described as "moderately competent" and "very competent," respectively.

1.2 Along instructional skills, both the school heads and the teachers perceived the teachers' competence level as "moderately competent" with WM of 3.20 and 3.35, respectively.

1.3 Along classroom management, the school head rated the teachers as "moderately competent" with WM of 3.30; while the teachers rated themselves as "very competent" with WM of 3.69.

1.4 Along evaluation skills, the competence level of the teachers was perceived to be "moderately competent" by the school head with WM of 3.30; while the teachers perceived their competence level as "very competent" with WM of 3.76.

1.5 In summary, the school head perceived the competence level of the teachers as "moderately competent" with overall WM of 3.25; while the Mathematics teachers perceived themselves as "very competent" with overall WM of 3.58.

2.0 Difference Between School Head's and Teachers' Assessment of Teaching Performance

2.1 There is a significant difference between the school head's and the teachers' assessment of teaching performance in terms of evaluation skills as evidenced by the computed value which is less than 0.05 level of significance.

2.2 There is no significant difference between the school head's and the teachers' assessment of teaching performance in terms of mastery of subject matter, instructional skills and classroom management as evidenced by the computed values which are more than 0.05 level of significance.

3.0 Problems Met by the Mathematics Teachers in Terms of Certain Variables

3.1 In terms of instructional materials, three problem indicators were "highly serious" with weighted means of 4.53, 4.62 and 4.69; two were "very serious" with weighted means of 3.62 and 3.54; and one was "moderately serious" with weighted mean of 3.31. The average weighted mean was 3.85 for descriptive equivalent of "very serious."

3.2 In terms of teaching strategies, three indicators were "highly serious" with weighted means of 4.69, 4.54 and 4.62; three were "very serious" with weighted means that ranged from 3.54 to 4.46; and four were "moderately serious with weighted means that ranged from 2.69 to 3.46.

3.3 In terms of assessment tools, four indicators were "very serious" with weighted means that ranged from 3.54 to 3.92; and six were "moderately serious" with weighted means that ranged from 2.6 9 to 3.46.

3.4 In summary, the overall weighted mean was 3.69 for descriptive equivalent of "very serious."

4.0 Enhancement Program for Mathematics Teachers

An enhancement program was proposed for the Mathematics teachers in Camachiles National High School, Division of Mabalacat City to enhance the teachers' competence.

CONCLUSIONS

Based on the findings of this study, the following conclusions were drawn:

1. Generally, the Mathematics teachers are moderately competent in terms of mastery of subject matter, instructional skills, classroom management, and evaluation skills which indicates that they demonstrate moderate success in performing instructional and other duties in teaching.
2. There is a significant difference between the teachers' performance as assessed by the school head and the Mathematics teachers in terms of evaluation skills; however, there are no significant differences between the respondents in terms of mastery of subject matter, instructional skills and classroom management.
3. Problems met by the teachers in teaching Mathematics are inadequate instructional materials for online teaching, integration and use of different technologies, scarce media resources to support Mathematics instruction during the pandemic, lack of prerequisite knowledge of students, need of students for after school tutoring, and homework left undone or late for submission.
4. The proposed enhancement program features the following topics: establishing engaging learning environments, active and collaborative learning, communities of practice, online learning communities, and enhancing instruction and activity in online learning environments.

RECOMMENDATIONS

On the basis of the findings and conclusions drawn, the following recommendations were offered:

1. The proposed enhancement program should be considered for implementation to enhance the competence level of the Mathematics teachers.
2. The proposed enhancement program should be evaluated regularly for further improvement and for the teachers to keep abreast of current developments in Mathematics education.
3. The school administration should offer in-service leadership training to all teachers for their professional growth and development.
4. Similar studies may be conducted on a wider scope to validate the findings of the study.

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