

# PROFESSIONAL PROFILE OF THE GRADE 4 MATHEMATICS TEACHERS

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This study used the descriptive method of research in the assessment of professional profile of the Grade 4 Mathematics teachers in Catarauan Elementary School, Amulung West District Cagayan during the school year 2024-2025. The assessment included the professional profile of the Mathematics teachers in terms of their highest educational attainment, number of years of experience as Mathematics teachers and relevant in-service trainings attended; the level of performance of the Grade 4 Mathematics learners and the problems being met by the Grade 4 Mathematics teachers in the teaching of Mathematics in the implementation of Mathematics in the K-12 curriculum. The output of this study is a proposed recommendations to enhance the teaching skills and competencies of the Grade 4 Mathematics teachers in Catarauan Elementary School, Amulung West District Cagayan. The forty-six (46) Grade 4 Mathematics teachers served as respondents of the study. Frequency, Percentage and Average Weighted Mean was used to treat the different sub-problems in the study.

## Findings

- 1.0 Professional Profile of the Grade 4 Mathematics Teachers in Catarauan Elementary School, Amulung West District Cagayan
  - 1.1 Majority of the Grade 4 Mathematics teachers finished BSEED with MA units 10 or 21.74 percent.
  - 1.2 The Grade 4 teachers had a number of years of experience as Mathematics teachers 0-3 and 4-6 years of experience or 15 or 32.61 percent.
  - 1.3 The Grade 4 teachers attended various in-service trainings from the Regional, Division to District Level.
- 2.0 Level of Performance of the Grade 4 Learners in Mathematics Based on a Teacher Made-Test.
  - 2.1 The level of performance of the Grade 4 learners in Mathematics was “Poor” 23 or 39. 65 percent.
- 3.0 Problems Being Met By The Grade 4 Mathematics Teachers In The Teaching Of Mathematics As A Subject In The K-12 Curriculum.
  - 3.1 Majority of the Grade 4 Mathematics Teachers revealed that they met problems in the teaching of mathematics to a “Serious” problem along teacher, pupil and parent related-problems.
- 4.0 Proposed Recommendations To Enhance The Teaching Skills And Competencies Of The Grade 4 Mathematics Teachers In Catarauan Elementary School, Amulung West District Cagayan
  - 4.1 The proposed recommendations can enhance the teaching skills and competencies of the Grade 4 Mathematics Teachers in Catarauan Elementary School, Amulung West District Cagayan.

## CONCLUSIONS

Based on the analysis of the findings, the following conclusions were drawn:

1. The level of performance of the Grade 4 learners in Mathematics can still be improved.
2. The problem being met by the Grade 4 Mathematics Teacher can as given possible solutions.
3. The proposed recommendations can help the Grade 4 mathematics teachers improved their teaching skills in mathematics.

## RECOMMENDATIONS

Based on the conclusions drawn the following recommendations are hereby offered.

1. The proposed recommendations are forwarded to the Grade 4 Mathematics Teachers for implementation in order to have effective implementation of the Mathematics Program.
2. The professional profile of the Grade 4 Mathematics teachers should be updated by way enrolling in the Graduate Program.
3. Similar studies be conducted in a writer scope, Regional, Division level to validate the findings of the study.

## CHAPTER 1 THE PROBLEM

### Rationale

Teaching and learning mathematics are complex tasks. The effect on student learning of changing a single teaching practice may be difficult to discern because of the simultaneous effects of both the other teaching activities that surround it and the context in which the teaching takes place. Thus, as teachers seek to improve their teaching effectiveness by changing their instructional practices, they should carefully consider the teaching context, giving special consideration to the types of students they teach. And, further, they should not judge the results of their new practices too quickly. Judgments about the appropriateness of their decisions must be based on more than a single outcome. If the results are not completely satisfactory, teachers should consider the circumstances that may be diminishing the impact of the practices they implementing. For example, the value of a teacher focusing more attention on teaching for meaning may not be demonstrated if student assessments concentrate on rote recall of facts and proficient use of isolated skills.

Schools that serve students of poverty that are beating the odds and performing on par and in some cases better than schools that serve more affluent students. To determine what can be reproduce elsewhere, this thesis take a look what is taking place taking place in this schools: a demanding curriculum, implementation of problem solving, deep understanding and communication of mathematics, continual reworking of curriculum, using valid instructional practices, building relationships, and teacher leadership. For instructional practices to improve, teachers must step up and become leaders in the classroom to impact the environment and school culture. Six principles are discussed that are critical to making the changes to necessary to impact student achievement in schools that serve the poor. To assist in the battle to improve instruction and student learning in schools that serve the poor, colleges and universities can play a critical role (Sims, 2011).

It has recognized that building the capacity of teachers and schools to teach pupils with a diverse range of SEN is key to raising the achievement of these pupils. This report provides an overview of teaching strategies and approaches for pupils with special educational needs, the theoretical underpinnings of these strategies and approaches, and the role of specialist knowledge in teaching these pupils. The report also considers how the findings of the scoping study might become embedded in every day teaching practice (Davis et. al., 2003).

When students struggle with the academic concepts, schools try a variety of intervention tactics. Remediation strategies are one type of intervention. Effective remediation involves assessing the student's needs, providing intervention and evaluating student outcomes. Successful remediation programs adjust the instruction based on the student's response to the intervention (Seehorn of eHow.com).

The number of research studies conducted in mathematics education over the past three decades has increased dramatically (Kilpatrick, 1992). The resulting research base spans a broad range of content, grade levels and research methodologies. The results from these studies, together with relevant findings from research in other domains, such as cognitive psychology are used to identify the successful teaching strategies and practices in mathematics.

The quality of the implementation of the teaching practice also greatly influences its impact in student learning. The value of using manipulative materials to investigate a concept, for example, depends not only in *whether* manipulative are used, but also on *how* they are used with the students. Similarly, small group instruction will benefit students only if the teacher knows when and how to use this teaching practice. Hence, as a teacher implements any of the recommendations, it is essential that he or she constantly monitors and adjusts the way the practice is implemented in order to optimize improvements in quality. These cautions notwithstanding, the research findings indicate that certain teaching strategies and methods are worth careful consideration as teachers strive to improve their mathematics teaching practices. As readers examine the suggestions that follow, it will become clear that many of the practices are interrelated. There is also considerable variety in the practices that have been found to be effective, and so most teachers should be able to identify ideas they would like to try in their classrooms. The practices are not mutually exclusive; indeed, they tend to be complementary. The logical consistency and variety in the suggestions from research make them both interesting and practical.

In recent years a number of writers and researchers have focused attention upon primary teachers' and student teachers' beliefs about and attitudes towards mathematics teaching. Teacher's beliefs about mathematics have been shown to be particularly important in terms of the instructional practices they adopt. Studies have shown the teachers' instructional practices are closely related to their beliefs about mathematics (Lerman, 1993). Lerman argues that the choice between teaching perspectives "is not a question of pedagogical method in the first instance, but of the logical consequence of a theory acknowledge". Studies have also shown that teachers' instructional practices affect their pupils' perceptions of mathematics as a discipline (Schoenfeld, 1988). The relationship between teachers' beliefs about mathematics teaching and their instructional practices is not as strong as that between their beliefs about mathematics and their instructional practices (Thompson, 1992); a number of constraints, such as the need to conform to school norms (Sullivan, 1989) and inadequate mathematical knowledge on the part of the teacher are known to account for inconsistencies in teachers' professed beliefs and their instructional practices. Other studies have shown that teachers' attitudes affect their instructional practices and that these in turn affect the attitudes and achievement of their pupils (Buerk, 1985).

A traditional view of mathematics is known to predominate amongst teachers and pre-service student-teachers. They are known to regard mathematics either as a body of absolute truths which exists independently of the learner or as a set of tools, comprising facts, rules and skills (Southwell & Khamis, 1993). A traditional view of mathematics tends to lead a 'transmission' model of teaching characterized by exposition, practice, and memorization, known as instrumental teaching (Lerman, 1983). Recent curriculum reforms which are based upon constructivism require for many teachers and student-teachers a change in their perceptions of mathematics, of the nature of learning and of the teacher's role in the classroom (Cobb et al., 1991).

Constructivism, which is based upon the notion that learners actively construct their own understanding as opposed to discovering an objective reality, implies a view of mathematics as "fallible, changing and like any other body of knowledge, the product of human invention" and thus as a process of inquiry. The view, known as the fallibility view is clearly incompatible with traditional notions of mathematical knowledge and furthermore, implies a pedagogy which is not consistent with a traditional view of mathematics.

Constructivism argues for a learner-centered, problem-solving view of mathematics teaching, in which the teacher is a facilitator of learning whose task it is to provide for students, opportunities to engage in meaningful mathematical problem-solving in order that opportunities for them to construct mathematical understanding are maximized. Given that a traditional view of mathematics is known to predominate amongst primary student-teacher, it is likely that their beliefs about mathematics teaching would be consistent with the instruction that is characterized by exposition and practice (Lerman, 1983). Furthermore, since their own personal experiences of learning mathematics are known to be the most significant influence on pre-service students' beliefs about mathematics teaching and since instrumental teaching are predominate in mathematics teaching, it seems is likely that their beliefs about mathematics teaching would be consistent with instrumental teaching. If student-teachers are to adopt the instructional practices recommended by the recent curriculum reforms, it is clearly essential that pre-service mathematics education courses induce changes in their beliefs about what constitutes mathematics, in their beliefs about what constitutes effective teaching and their beliefs about the role of the mathematics teacher (Striker, 1988) It is on this account that the researcher was motivated to conduct this study in line with the professional people of the Grade 4 mathematics teachers in Calasiao District I, Schools Division Office I Pangasinan. Hence, the conduct this study.

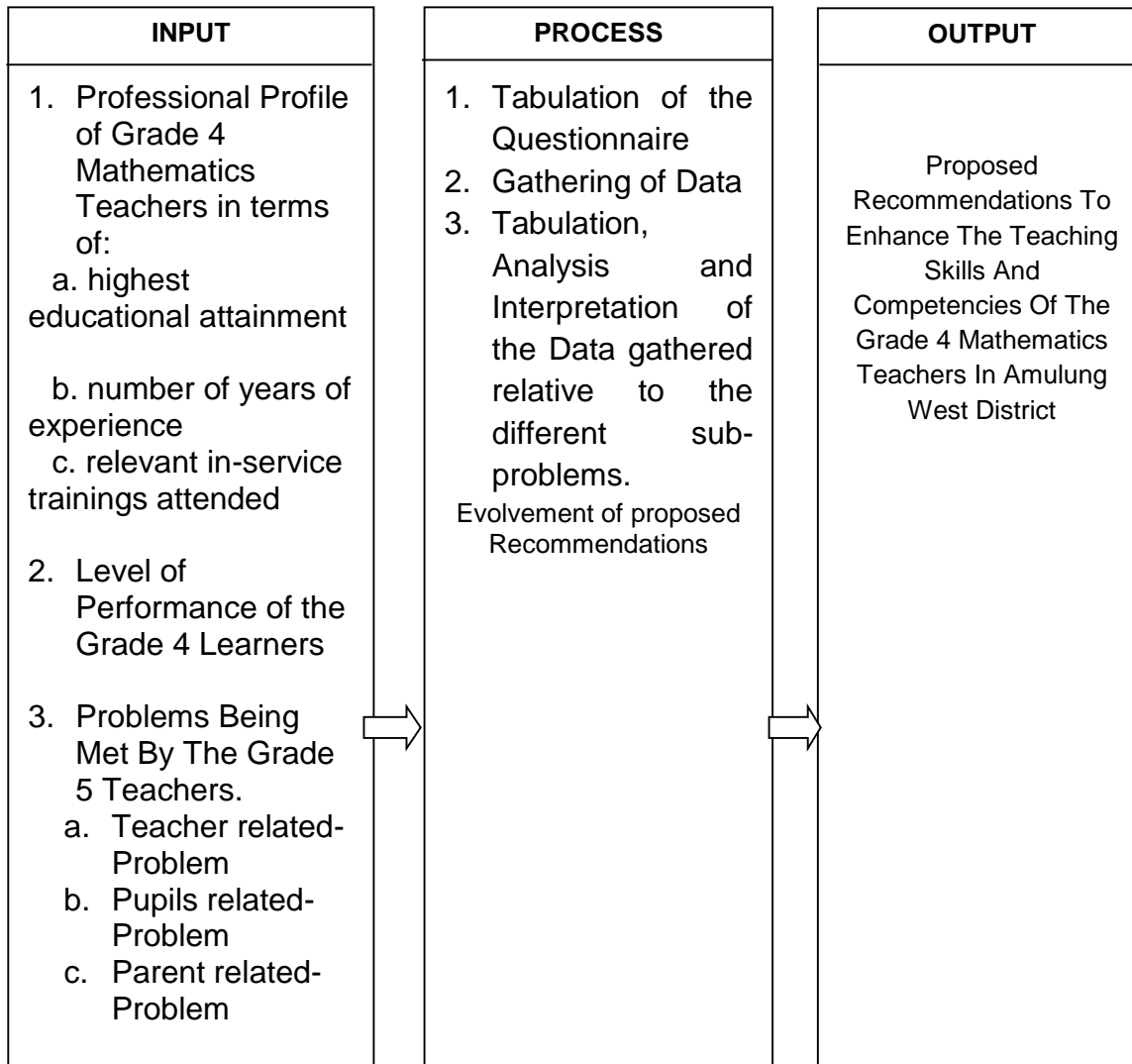
### **Conceptual Framework**

This study used the Republic Act 10533 and the 1987 Philippine Constitution as the legal bases. The 1987 Philippine Constitution states that: "the state shall give priority to education service and technology and culture and sports and as a tool to achieve its aspiration to create a society of responsible, productive, full-filling, and patrols citizenly." And on the other hand Republic Act 10533 is an act enhancing the Philippine basic Education System by strengthening its curriculum and increasing the number of years for Basic Education.

The teacher of Mathematics has two problems. The first is to provide his pupils mathematical experiences suitable to the state development of their existing concepts and to fit his method of presentation to the pupils' concrete or formal level of thinking. The second is to analyze new mathematical himself so that he can synthesize his own concept in way most meaningful for his independent of the teacher. To solve these problems in ways that will meet the needs of the learners, the teacher needs to know and how to use different teaching strategies.

Figure 1 in the next page presents the paradigm of the conceptual framework of the study using the "Input-Process-Output" model. For input, included is the professional profile of the Grade 4 mathematics teachers in terms of their highest educational attainment, number of years of experience teaching Mathematics, relevant in-service trainings attended, level of performance of the Grade 4 mathematics teachers in the implementation of the Mathematics in the k-12 curriculum. The output of the study is the recommendations to enhance the teaching skills and competence of the Mathematical teacher in the teaching of Mathematics in the K-12 curriculu

The Professional Profile Of Grade 4 Mathematics Teachers In  
 Amulung West District,



**Figure I**  
**The Paradigm of the Conceptual Framework of the Study**  
**Statement of the Problem**

This study assessed the professional profile of the Grade 4 Mathematics teachers in Amulung West District, Cagayan during the school year 2024-2025. Specifically, it sought to answer the following sub-problems:

1. What is the professional profile of the Grade 4 Mathematics Teachers in Amulung West District, Cagayan in terms of the following:
  - a. highest educational attainment
  - b. number of years of experience teaching Mathematics
  - c. relevant in-service trainings attended
2. What is the level of performance of the Grade 4 Mathematics Learners based on the analysis of a teacher-made test?
3. What is the problems being met by the Grade 4 Mathematics teachers in the teaching of Mathematics as a subject in the k-12 curriculum?
4. Based on the analysis of the findings, what recommendations can be proposed to enhance the teaching skills and competencies of Mathematics teachers in Amulung West District, Cagayan?

## Basic Assumptions

This study is anchored on the following basic assumptions:

1. The professional profile of the Grade 4 Mathematics teachers will serve as frame of reference in improving the performance level of the Grade 4 pupils.
2. The proposed recommendations can enhance the teaching skills and competencies of the Grade 4 Mathematics teachers if it will be fully implemented.

## Scope and Delimitation

This study was delimited to the assessment of the professional profile of the Grade 4 Mathematics teachers in Amulung West District, Cagayan during the school year 2024-2025. The study included the profile of the Grade 4 Mathematics teachers in terms of their highest educational attainment, number of years of experience as Mathematics teachers and relevant in-service trainings attended in Mathematics; the level of performance of the Grade 4 learners and the problems being met by the Grade 4 Mathematics teachers in Mathematics as a subject in the K-12 curriculum. The output of the study is a proposed recommendation to enhance the teaching skills and competencies of the Grade 4 Mathematics teacher in the Amulung West District, Cagayan in the implementation of the K-12 curriculum.

The study did not cover the implementation of the proposed recommendations due to time constraints.

## Significance of the Study

Results of this study will benefit the following:

**School administrators.** The result of this study will help them to monitor religiously the implementation of Mathematics as a subject in the K-12 curriculum.

**Mathematics Teachers.** Findings of this study will help them improve their teaching skills and competencies in the teaching of Mathematics as a subject in the k-12 curriculum.

**Grade 4 Learners.** The result of this study will benefit them as they are the end beneficiaries of the Mathematics program.

**The Researcher Herself.** The result of this study will help her improve the academic performance of the Grade 4 learners in Mathematics and to implement the k-12 curriculum religiously.

**Other Researcher.** Result of this study will serve a frame of reference to conduct other learning areas.

## Definition of Terms

The following terms were operationally defined as they were used in the study.

**Professional Profile.** This refers to the highest educational attainment, number of years of experience teaching Mathematics and relevant in-service trainings attended in Mathematics by the Grade 4 Mathematics teachers in Amulung West District, Cagayan.

**Level of Performance.** This refers to the results of the teacher made test administered to the Grade 4 learners in Mathematics.

**Problems.** As used in the study they were the identified problems being met by the Mathematics Teachers in the teaching of Mathematics in the K-12 curriculum.

**Recommendations.** As used in the study, it is the output to enhance the teaching skills and competencies by the Grade 4 Mathematics teachers in Amulung West District, Cagayan

## LITERATURE

### New Trends in Mathematics Teaching

Though many children's books are explicitly about Mathematics, such as books counting or shapes, other books have Mathematics embedded within a larger context. These books are generally not perceived as "math books", but Mathematics appears as a natural element within stories, problems, personal vignettes, or cultural events. Welchman-Tischler (2012) has classified the ways to use such books as follows:

1. Provide a context or model for an activity with mathematical content.
2. Introduce manipulative that will be used in varied ways (not necessarily as in the story)
3. Inspire a creative mathematics experience for children.
4. Pose an interesting problem.
5. Prepare for a Mathematics concept or skill.
6. Develop or explain a Mathematics concept or skill.
7. Review a Mathematics concept or skill.

Though any given book could likely be used in multiple ways, the common element in these various approaches is the intent to use literature to provide vicarious experiences based on real problems or situation of interest to teachers and students.

### Goals of Mathematics Instruction

Goals for Mathematics instruction depend on one's conceptualization of what Mathematics is, and what it means to understand Mathematics. Such conceptualization varies widely. At one end of the spectrum, mathematical knowledge is seen as a body of facts and procedures dealing with quantities, magnitudes and forms, and relationships among them; knowing Mathematics is seen having "mastered" these facts and procedures. At the other end of the spectrum, Mathematics is conceptualized as the "science of patterns" an (almost) empirical discipline closely akin to the sciences in its emphasis on pattern seeking on the basis of empirical evidence.

Mathematics is an inherently social activity, in which- a community of trained practitioners (mathematical scientists) engages in the science of patterns - systematic attempts, based on observation, study, and experimentation, to determine the nature or principles of regularities in systems defined axiomatically or theoretically ("pure mathematics") or models of systems abstracted from real world objects ("applied mathematics"). The tools of mathematics are abstraction, symbolic representation and symbolic manipulation. However, being trained in the use of these tools no more means that one thinks mathematically that knowing how to use shop tools makes one craftsman. Learning to think mathematically means (a) developing a mathematical point of view – valuing the processes of mathematization and abstraction and having the predilection to apply them, and (b) developing competence with the tools of the trade, and using those tools in the service of the goal of understanding structure – mathematical sense making. (Schoenfeld, forthcoming).

This notion of mathematics has gained increasing currency as the mathematical community has grappled, in recent years, with issues of what it means to know mathematics and to be mathematically prepared for an increasingly technological world. The following quotation from *Everybody Counts* typifies the view, echoing themes in the NCTM Standards (NCTM, 1989) and *Reshaping School Mathematics* (National Research Council, 1990):

Mathematics is a living subject which seeks to understand patterns that permeate both the world around us and the mind within us. Although the language of Mathematics is based on rules that must be learned, it is important for motivation that students move beyond rules to be able to express things in the language of Mathematics. This transformation suggests changes both in curricular content and instructional style. It involves renewed effort to focus on seeking solutions, not just memorizing procedures; exploring patterns, not just memorizing formulas; formulating conjectures, not just doing exercises. As teaching begins to reflect this emphasis, students will have opportunities to study Mathematics as an exploratory, dynamic, evolving discipline rather than as a rigid, absolute, closed body of laws to be memorized. They will be

encouraged to see Mathematics as a science, not as a canon, and to recognize that Mathematics is really about patterns and not merely about numbers (p. 84).

From this perspective, learning Mathematics is empowering. Mathematically powerful students are quantitatively literate. They are capable of interpreting the vast amount of quantitative data they encounter on a daily basis, and of making balanced Judgments on the basis of those interpretations. They use Mathematics in practical ways, from simple applications such as using proportional reasoning for recipes or scale models, to complex budget projections, statistical analysis, and computer modeling. They are flexible thinkers with a broad repertoire of techniques and perspectives for dealing with novel problems and situations. They are analytical, both in thinking issues through themselves and in examining the arguments put forth by others.

### **Teacher's teaching Style in mathematics**

Learning is significantly affected by the teacher's teaching styles being the facilitator of learning and in control of the situation/s in the classroom. In order to get students motivated in learning mathematical procedures, the teacher should look first into the level of understanding of his students. The key to teaching mathematics to students internalize and transfer their knowledge is to make learning Mathematics personal. No matter how many worksheets students complete, they will never make the connection between Mathematics concepts until it is concrete and relates to their personal environment. Mathematics needs to be real and not just a set of numbers of endless problems to calculate. Personal Mathematics allows students to link concepts as whole and not a lot of independent ideas with no connection. Teacher should provide lots of concrete manipulative to ensure understanding takes place before moving the abstract concepts. Most students will master mathematical concepts and skills more readily if they are presented first in concrete, pictorial and symbols. For example manipulative pictures and symbols to models or represent abstract ideas, stage is set for learners to understand the abstractions they represent. Teachers also accept responsibility for student success, develop communities or respect, and help students become partners in their own success. They take on three instructional roles: direct instructor, facilitator, and coach (D. Wetzel, 2009).

Teaching styles may cause difficulties to students in such a way that they serve as stimulus to elicit student's enthusiasm, interest, participation and confidence in the Mathematics classroom. The practices that are regular part of the traditional Mathematics classroom cause great difficulties in many students. Therefore, teaching methods and styles must be re-examined, which do not match students learning styles and skills needed in society. There should be more emphasis on teaching that more in student directed and needs to be relevant to their everyday lives. Students enjoy experimenting, engaged in exploring, conjecturing and thinking rather engaged in role learning of rules and procedures.

Mathematics disabilities can arise at nearly any stage of a child's scholastic development. While very little is known about the neurobiological or environmental causes of these problems, many experts attribute them to deficits in one or more of five different skill types. These deficits can exist independently of one another or can occur in combination. All can impact a child's ability to progress in Mathematics.

### **Development of Manipulative for Teaching Mathematics**

Both Pestalozzi, in the 19<sup>th</sup> century and Montessori in the early 20<sup>th</sup> century advocated the active involvement of children in the learning process. In every decade since 1940, the National Council of Teachers of Mathematics (NCTM) has encouraged the use of manipulative at all grade levels. Every recent issue of the "Arithmetic Teacher" has described uses of manipulative. In fact, the entire February 1986 issue considered answers to the practical questions of why, when, what, how and with whom manipulative materials should be used.

Research suggest that manipulative are particularly useful in helping children move from the concrete to the abstract level. Teachers, however, must choose activities and manipulative carefully to support the introduction of abstract symbols. Heddens divided the transitional iconic level (the level between concrete and abstract) further following way into the semi-concrete and semi-abstract levels, in the following way.

The semi-concrete level is a representation of a real situation; pictures of the real items are used rather than the items themselves. The semi-abstract level involves a symbolic representation of concrete items, but the pictures do not look like the objects for which they stand (Heddens, 2016).

Howden (2016) places specific manipulative on this continuum. These manipulative ranks from the concrete to the abstract. In place value, for example (going from concrete to abstract), they include pebbles, bundled straws, base-ten blocks, chip-trading, and the abacus. Howden cautions that building the bridge between the concrete and abstract levels requires careful attention. She notes that, even if children can solve a given problem at the abstract level, they may not be able to solve the same problem at the abstract level. This problem occurs if the bridge has not been structured by a careful choice of manipulative.

### **Common Problems Encountered in Learning Mathematics**

Webster's definition citing immediately above, captures of the sense of the term problem as it has traditionally been used in Mathematics instruction. For nearly as long as we have written records of Mathematics, sets of Mathematics tasks have been with us – as vehicle of instruction, as means of practice, and as yardsticks for the acquisition of mathematical skills. Often such collections of tasks are anything but problems. In the sense of the second definition. They are <sup>^</sup> rather, routine exercises organized to provide practice on a particular mathematical technique that, typically has just been demonstrated to the student. We begin this section with a detailed examination of such problems, focusing on their nature, the assumptions underlying their structure and presentation, and the consequences of instruction based largely, if not exclusively, in such problem sets. That discussion sets the context for a possible alternative view.

A far less common problem and probably the most severe is the inability to effectively visualize Mathematics concepts. Students who have this problem may be unable to judge the relative size among three dissimilar objects. This disorder has obvious disadvantages, as it requires that a student rely almost entirely on rote memorization of verbal or written descriptions of Mathematics concepts that most people take for granted. Some mathematical problems also require students to combine higher order cognition with perceptual skills.

### **Difficulties in Mathematics**

Mathematics is a difficult subject. It is an exact science and pupils get easily frustrated if they do not get the exact answer right away. Some pupils are afraid because they do not want to be embarrassed when their answer is incorrect. As teachers equipped with the new techniques and strategies in teaching the subject, we should encourage a change in the way we view Mathematics. Mathematics should not be hard; instead it should be interesting. Mathematics must find significance in the experiences and life of the pupils; this allows the learners to appreciate the subject. Pupils will be motivated to learn Mathematics because they are able to do it (Lee-Chua, 2007).

We should also develop a culture of effort and hard work. Parents and teachers must work together to make diligence a part of the culture. Teachers, of course, play a vital responsibility in molding pupils to like this subject. Teachers should properly encourage and challenge their pupils to become interested in Mathematics. It is suggested that: 1) explain the topic and its relevance, pupils do not enjoy learning Mathematics because of the deficiency in the teaching process. The pupils will feel frustrated and say they are bored; 2) understand and respect the individual nature of each child. Pupils learn differently. His learning acquired in school depends much on being taught in the style that matches how he learns. Some pupils have difficulty because the ideas and information are not presented in the way that their mind absorbs if most easily. That is why the fear of learning Mathematics is developed. Sensitive teachers are continuously in search of appropriate techniques and styles to develop and improve their teaching styles to help her pupils answer the three basic questions. Children have different inclinations, learning styles, personality types and levels of readiness. Avoid comparing one pupil with another. Every pupil is different, with his own gifts (Lee-Chua, 2007).

### **Ways to Teach Mathematics Effectively**

Teachers are bewildered and even hopeless at present time because they find it difficult to teach the Math subject effectively to the pupils. The Basic Education Curriculum is being followed/ implemented in all the

elementary schools in our country. Mathematics is the most tested, most evaluated, and most studied subject by the DepEd authorities, aside from Science and English, due to low performance of the pupils in the said subjects (Lee2015).

Lee (2015) in an answer on how to teach Mathematics adopted Arem's principles in teaching the said subject. Here are the effectively tested practices which can use:

1. Attend all the Mathematics classes.
2. Read Mathematics assignment before attending class.
3. In class, mentally follow all explanations; try to understand concepts and principles.
4. In class, write down main points, steps in explanation, definitions, examples, solutions and proofs.
5. Review class notes as soon after class as possible.
6. Review class notes again six to eight hours later, or definitely the same day.
7. Do weekly and monthly reviews of all your class and textbooks notes.
8. In reviewing, use all methods such as reciting aloud, writing, picturing the material, etc.
9. Study Mathematics before other subject and when you are most alert.
10. Take small breaks every 20 to 40 minutes when studying Mathematics.
11. Work to complete difficult Mathematics assignments in several small blocks of time.
12. Reward yourself for having studied and concentrated.
13. Survey your Math reading before tackling it in depth.
14. When reading, say it aloud and write out important
15. Underline, outline or label the key procedures, concepts and formulas in the text.
16. Take notes on the text and review them often.
17. Complete all assignments and keep up with the Mathematics class.
18. Study Mathematics two hours per day, at least five days a week.
19. Work on at least 10 new problems and five review problems during each study session.
20. Work to "over learn" and thoroughly master your material.
21. Retest yourself often to fix ideas in memory.
22. Work to understand all formulas, terms, rules and principles before memorizing them.
23. Use a variety of checking procedures when solving Mathematics problems.
24. Study with two or more different Mathematics books.

It is often said that in any problem in teaching or education, the teacher is at the heart of the problem. A well-prepared and knowledgeable Mathematics teacher will surely teach his or her pupils well. Let us all adopt the above-mentioned practices in order to help our pupils in the study of the Mathematics subject. The two dozen ways of how to teach Mathematics effectively will surely revolutionize your way of teaching and will benefit all the children under our care (Lee, 2015).

### **Mathematics Instruction**

By early 1980's a number of publications designed for teachers discussed research findings which have implications for classroom practice. These publications have been supplemented by briefer reviews, such as the "Research Reports" in the Arithmetic Teacher Journal, which are designed for quick reading by busy teachers. This Digest continues the pattern, reviewing recent research of particular interest to teachers. The focus of many of these studies has been on two topics: computation particularly subtraction and estimation, and problem solving. These two concerned have garnered continued research attention through this century-the first presumably because it has been the prevailing focus of the elementary school mathematics program and the second because of the difficulties for both teachers and students at all levels.

Children invent strategies to solve subtraction problems. Children used a variety of modeling and counting strategies even before formal instruction, and these invented strategies continued to be used for several years. Helping children to merge invented strategies with the ones taught in school (often more abstract) requires careful development by the teachers. Baroody (2014) detailed some informal subtraction strategies, and presented some ideas for the teacher to use that incorporate these varied strategies. The use of counting strategies to solve subtraction problems was also noted by Steinberg (2014). She taught second graders to use derived fact strategies, in which known number facts are used to find the solution to unknown facts. After eight weeks of children more than doubled their use of derived facts, which involve more mature ways

of thinking than reliance solely on counting. Estimation is another important topic once again receiving increased attention. It is especially important for two reasons: (1) it is used far more often than paper-and-pencil skills in everyday life and (2) it is particularly important as both adults and children do more work with calculators and computers. Ways to check the reasonableness of results are vital. Estimation skills depend strongly on a student's "number sense". They need to develop "friendliness" for numbers, including awareness that most computations can be done in many ways, rather than relying on one algorithm. Even at the tenth-grade level, counting skill is related to accuracy in estimating, and better counters feel more confident about the estimates they make.

### **Guiding Principles in Teaching Mathematics Effectively**

Spitzer (2008) said that in order to teach Mathematics more effectively, instruction should be based on the following basic principles:

1. The children's experiences immediate experiences, give purposes and meanings to their learning.
2. Teach only the meaning facts, procedures and skills that are useful in modern life.
3. Purposes of mathematics should be the following: (a) To develop exact thinking in situations in which consideration of quality is essential; (b) To provide a vehicle for establishing order, system and punctuality (c) To provide pupils with enough knowledge of mathematical processes and business procedures to enable them to solve efficiently the ordinary quantitative problems of everyday life; and (d) To furnish knowledge of development of numbers, weight and measures as basis for better understanding of civilization;
4. Principles governing selection of learning experiences should be the following: (a) Learning through experience (b) Base selection on the nature of the number, (c) The principles of familiarity should be applied and (d) Generalizations are grown out of experience.

The learning of mathematics is not based on one theory of psychology such as conditioning, associationism or Gestalt, but on an eclectic agreement of all theories. The following elements have been found sufficient for a satisfactory psychology of learning according to Fehr (2011).

1. There must be a goal on the part of the student to learn. The student must be aware of this goal.
2. All cognitive learning involves association. Thus  $a^3$  means  $a \cdot a \cdot a$  is illustrative of much of the learning in mathematics.
3. Trial and error, approximation and clarification, and analysis are all important in discovering routes to a goal or solutions to a problem. It must not be a hit-or-miss guessing situation but a structural thinking situation.
4. Learning is complete only to the extent to which relationships and their implications have been understood.
5. The learner must be active mentally. He learns what his intelligence is directing him to do.
6. Intrinsic rewards of success and awareness of progress toward a goal strengthen and motivate learning. Punishment and continual failure are deterrents to learning. Praise, success, self-esteem, and status are the best motivation for learning mathematics.
7. Abstractions (discriminating of attributes) and generalizations are essential to effective learning. Mathematics can be learned only in meaningful situations which permit these mental processes.
8. In Mathematics, most new learning is transference of past learning into a reorganization of a new situation. Algebra is generalizing and structuring arithmetic; geometry is generalizing and restructuring space concepts; trigonometry is generalizing and restructuring space concepts; trigonometry is generalizing and restructuring the algebra and geometry; and in all these subjects logic is developed as the structural binder.
9. We learn facts, skills, and understandings, but we also learn "how to learn". The ultimate goal is to project the student through life on his own power to learn.
10. We also learn attitudes (feelings. If unsuccessful, we learn to dislike mathematics and even those engaged in its teaching or research. From happy experience we learn to like the respect mathematics. For all mathematics students: (a) learning is thinking, and good learning is correct thinking, (b) successful thinking is possible at a given level by all students, (c) successful thinking is dependent upon acquired concepts and relationships, and (d) satisfaction from successful thinking provide the highest and most enduring enrichment for the learner.

## Role of the Mathematics Teachers' Competencies and Trainings

In line with the need for teachers to teach Mathematics effectively, Brown and Borko (2012) adopted the guidelines set forth in the 1990 Professional Standards for Teaching Mathematics. Such defined the Mathematics teacher's major roles which are: (1) creating a classroom environment to support teaching and learning mathematics; (2) setting goals and selecting or creating mathematical tasks to help students achieve these goals; (3) stimulating and managing classroom discourse so that students and teachers are clearer about what is being learned; and (4) analyzing student learning, the mathematics tasks, and the environment in order to make ongoing instructional decisions.

Thus, Fawcett and Cummins (2010) said that since Mathematics plays a vital role in our civilizations, classroom activities must be planned and engineered to help Students experience this role. Well-considered plans are necessary for the effective teaching of Mathematics. Teachers therefore should emphasize its growing importance, both as an instrument in the service of man and as an ordered system of ideas.

And so Smith (2012) pointed out that further training needed by all mathematics teachers should lead to them to apply in their teaching the following: (1) Understanding of principles and objectives of humanistic education; (2) Making emphasis on the structural evaluation and intelligence in relation to the development of mathematical thought; (3) Recognizing the relations of the concrete and the abstract and giving proper place to the methodology of models in mathematical teaching; (4) Being trained to observe and experiment in the teaching mathematics; and (5) Keeping interest in adolescent and their aspirations and acting as their leader and guide.

In addition Smith said that the ideal mathematics teachers should keep abreast of modern developments in the theoretical science, importance on-going applications of mathematics and recent advances in the teaching of mathematics.

Reinforcing Smith's ideas are those of Harley (1981) who emphasized that a good mathematics teacher must have a mastery of his subjects; the ability to teach based on the knowledge of the teaching-learning process and to impart ideas. He must show interest in his learner and must commit or involve himself to the growth of Mathematics. Thus, he must attend seminars and do some researches and writing about mathematics.

## STUDIES

Calachan's (2000) study pointed out several factors such as sex and mental ability that can contribute to achievement. She asserted that performance of the students in Science and Technology. It is enhanced when they are exposed to the technique of defining objectives in the teaching of Science. The study tested the hypothesis that there are no significant learning objectives before the lesson started with the use of the traditional method. The experimental research method of investigation with the Achievement Test in the form of multiple choices as the main data-gathering instrument was used in this study. The following statistical tools were employed in the analysis and interpretation of the data gathered: mean, standard deviation, skewness, kurtosis and one-factor analysis of co-variance.

In the light of the study, she came up with the following findings:

1. In terms of I.Q. level, majority of the students in the experimental group ranged from normal average to mentally defective. However, employing ANOVA with the I.Q. serving as the covariate statistically equalized the respondent's achievements.
2. Performance of the students in the Achievement Test in Science III who were exposed to the techniques of defining the learning objectives before the lesson started was higher than those students exposed to the traditional method.
3. The two treatments differed significantly in terms of achievement in selected concepts in Science and Technology.

Coloma (2008) determine the relationship between the NEAT Mathematics, Science and Health and English sub-test scores and teaching methodologies used and quality of assignments given in the four subjects.

The descriptive-correlational method of research was employed. Two hundred forty six (246) out of six hundred forty two (642) pupils drawn randomly from Rosales District I, Pangasinan II were utilized to determine the subjects. Thirty nine (39) teacher respondents provided the data on the teaching methodologies they used.

Division and school records were the sources of data. In the NEAT scores, Division Achievement Test and grade Point Average (GPA). A checklist was administered to determine the teaching methodologies.

Coloma offers the following recommendations:

1. Although the respondents meet the proficiency level set by the DECS in the NEAT and the Division Test, there is still a need to improve and enhance further their achievement level.
2. Teachers should identify other factors that may affect the academic performance of the pupils.
3. Teachers should constantly use varied and appropriate teaching devices and methodologies to carry out lessons effectively.

Junio (2011) states that pupils' school performance should serve as basis for determining appropriate materials for remediation to upgrade academic instruction. It should also be the basis for identifying the least learned subject areas and skill deficiency of pupils.

The descriptive survey method was used in the study. There were one hundred eighty (180) Grade 4 pupils from 9 barangay schools in Bayambang I and 20 teacher-respondents teaching English, Mathematics and Science and Health who were involved in the study. Form 18-E2 and the Grade Point Average (GPA) served as indicators of pupils' performance.

In the light of her study, Junio concluded that:

1. Instructional materials are necessary in upgrading academic instruction of pupils.
2. The Grade Point Average of the pupils can be used as basis for curriculum development.

Marcelino (2010) made a study on elementary mathematics in Grade V in Lucban and Mabini Districts, Baguio City. Her respondents were 42 Grade V teachers from both districts. Using the descriptive-normative survey method of researches she came out with the following findings:

1. The degree of effectiveness of methods used by the teachers in teaching Grade V mathematics in Lucban and Mabini District was "effective: as revealed by the computed average weighted mean of 2.23 and 2.35 respectively.
2. The degree of effectiveness of methods used by the teachers was not significant when statistically computed as shown by the value of which was .450.
3. All the instructional materials used by the teachers in both districts obtained a descriptive equivalent of "adequate".
4. The obtained value of A in the comparison of the degree of adequacy of instructional materials used by the teachers was .632 which is not significant.

As a result of the investigation the researcher recommended that:

1. Teachers teaching mathematics should use adequate instructional materials to improve the teaching of mathematics.
2. Teachers should exercise their resourcefulness and creativity in locating subject matter from different sources to suit the objectives in the Minimum Learning Competencies so that: (a) more mathematics and reference materials should be available for pupils' use; (b) for effective and success of teaching mathematics, the five evaluation measures should be used properly.
3. Every mathematics teachers should be encouraged to be more resourceful in making local and inexpensive teaching devices.

Medrano's study (2000) sought to find the effects of the proposed learning modules on selected topics in Mathematics III specifically on Variation and Similarity. Based on the validator's responses the modules have content validity. These tests were used both as pre-tests and post-tests on programmed lessons.

Her findings include the following:

1. Validation of the self-instructional materials showed that the low achievers in Mathematics underrated more easily the lessons that were presented with preponderance of verbal language; in small steps and with the use of many exercises. The self-instructional materials enabled the learned to acquire mastery of the concepts specified in the objectives.

Perez (2010) found out that properly constructed and validated instructional mathematics is effective for the fourth year high school students. She used linear equations in programmed style. Her findings showed a significant difference between the means of the two groups - the experimental group to whom the materials were exposed and the control group. In terms of performance in the achievement test, the former group using the programmed lessons ranked higher than the control group using the discovery approach. However, she emphasized in the recommendations that the programmed materials should not be used the whole year but only when the need arises.

Lachica(2011) proposed a modular instructional material in College Trigonometry. Following the steps in instructional materials preparation and validation, he included the following:

1. The constructed modular instructional material is valid and reliable. It can be used by teachers of Trigonometry in college.
2. The modular instructional material is effective for classroom use because it encourages the students to be patient, self-reliant and resourceful in his studies.
3. Any student considers solving word problems as the most difficult area of mathematics but he can learn the lesson better if he uses modular instructional materials with varied exercises and problems that can develop such skill.
4. The learner enjoys studying the lesson through the instructional materials especially if he gets the correct answer of the problem; if he commits mistakes he has the chance to recheck i-t by going over the lesson.
5. Fast learners do not experience boredom in a class because they can proceed to the next lesson in the modular instructional materials.

Guilay (2009) conducted a study on the teaching on the teaching of Modern Mathematics in complete elementary schools in five schools in the district of Western Mountain Province. Among the findings were: (1) Only 40 teachers had taken Modern Mathematics in college. Most of the respondents acquired their Modern Mathematics background from in-service education program; (2) The supply of Mathematics textbooks and other references especially in the primary grade were inadequate; (3) The most common problem of the respondents was lack of textbooks; (4) The teachers of Modern Math for each grade used prescribed to teaching guides; (5) The teachers had inadequate pre-service and in-service preparations to teach the subject; (6) Majority of the Modern Math teachers belonged to the age bracket of 35 to 39, were degree-holders and civil service eligible; (7) in average teaching experience is Modern Math of the respondents was 13.13 years.

His recommendations were the following:

1. More teaching guides and devices, textbooks and references should be provided by the division office.
2. More seminars on the district or division level and demonstration teaching on modern Mathematics should be conducted.
3. Team supervision should be conducted for a better supervision of the different areas.

Tobias (2003) sought to determine the professional profile, level of leading competence and performance of the Grade 4 Mathematics teacher in Amulung West District during the school year 2002-2003 and the problems encountered by them as basis for a continuing professional education program for them.

The descriptive method of research, and documentary analysis were used to gather the data needed. The questionnaire was used as a data gathering tool. The locale of this study was Amulung West District, Division of Cagayan where thirty (30) Grade 4 Mathematics teachers were involved as the sources of data. Among their findings the Grade 4 Mathematics teachers in Amulung West District are wanting in their professional profile in terms of highest educational attainment and in-service trainings attended; and there

are common problems being encountered by the Grade VI Mathematics teachers that affect instruction and their professional- growth.

### **Contribution of the reviewed Literature and Studies to the present Study**

This study focused on the assessment of competency of Grade 4 teachers in Mother Tongue as medium of instruction in the attainment of mastery learning in Mathematics. In undertaking this assessment, the researcher was guided by her reading of books in various concerns in Mathematics authorized by foreign and local writers which gained in terms of insights and knowledge on the various assessments on Mathematics Program.

The researcher was guided by the different studies found in Chapter I in terms of other variables used in the study. Based on the similarities and differences, the present study and the related studies can be said that the present study is not a duplication of the aforesaid studies.

## **CHAPTER 2 METHODOLOGY**

This chapter presents the research design, the sources of data, instrumentation and data collection and tools for data analysis in the different sub-problems raised in the study.

### **Research Design**

This study used the descriptive method of research in the assessment of the professional profile of the Grade 4 Mathematics teachers in Amulung West District, Cagayan during the school year 2024-2025. The assessment included the professional profile of the Grade 4 Mathematics teachers in terms of their highest educational attainment, number of years of experience as Mathematics teachers and relevant in-service trainings attended in Mathematics; the level of performance of the Grade 4 learners in Mathematics and the problems being met in teaching of Mathematics in terms of teachers, pupils and parent related problems. The output of the study is a proposed recommendation to enhance the teaching skills and competencies of the Grade 4 Mathematics teacher in the implementation of the K-12 curriculum.

### **Sources of Data**

The forty-six (46) Mathematics Grade 4 Teachers in Amulung West District, Cagayan who are presently teaching Mathematics during the conduct of the study served as respondents of the study. Table 1 presents the distribution of respondents.

**Table 1**  
**Distribution of Respondents**  
**N = 46**

<b>School</b>	<b>No. of Grade 4 Mathematics Teachers</b>
Agguirit Elementary School	1
Alituntung Elementary School	2
Annafatan ES	2
Bacring ES	2
Bayabat ES	2
Calintaan Elementary School	2
Caratacat ES	1
Casingsingan Sur ES	2
Casingsingan Norte ES	2

Catarauan ES	2
Cordova CS	2
Goran ES	2
La Suerte ES	2
Logung ES	2
Masical ES	2
Nabbialan ES	2
Nagsabaran ES	2
Nangalasauan ES	2
Nanuccauan ES	2
Pacac Grande Tana ES	2
Pacac Pequeno ES	2
Palayag ES	2
San Juan ES	2
Waig ES	2
<b>Total</b>	<b>46</b>

### Instrumentation and Data Collection

This study used the questionnaire as data gathering instrument in the assessment of the professional profile of the Grade 4 Mathematics teachers in Amulung West District, Cagayan during the school year 2024-2025. There are two parts of the questionnaire, Part I – deals on the professional profile of the Grade 4 Mathematics teachers in terms of their highest educational attainment, number of years of experience as Mathematics teachers and relevant in-service trainings attended. Part II – deals on the problems being met by the Grade 4 Mathematics in the implementation of Mathematics in the K-12 curriculum.

The researcher finalized the items in the questionnaire through the guidance of her adviser, after which all suggestions will also in cooperated in the final draft as approved by the Dean of the Graduate School and the panel members during the proposed defense. The researcher likewise asked permission from the Schools Division Superintendent, Schools Division Office I Pangasinan to float the questionnaire to the identified respondents and personally distributed and retrieve the questionnaire to ensure 100 percent retrieval.

### Tools for Data Analysis

The different sub-problems raised in the study were statistically treated individually.

For sub-problem 1 and 2 – on the professional profile of Mathematics teachers and the Level of Performance of the Grade 4 Learners, Frequency and Percentage was used.

For sub-problem 3 – on the problems being met by Mathematics teachers, Average Weighted Mean was used. The formula is:

$$AWM = \frac{\sum fx}{N}$$

where:

AWM = Average Weighted Mean  
 fx = distributed frequency  
 N = total number of respondents

### CHAPTER 3

#### PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the analysis and interpretation of the data gathered relative to the different sub-problems raised in the study.

#### Professional Profile of Mathematics Grade 4 Teachers In Amulung West District, Cagayan

This section presents the professional profile of mathematics teachers in Amulung West District, Cagayan. Table 2 presents the data in answer to sub-problem.

**Table 2**  
**Professional Profile of Grade 4 Mathematics Teachers in Amulung West District, Cagayan**  
**N=46**

<b>A. Highest Education Attainment</b>	<b>f</b>	<b>Percent</b>
1. BSEED	20	43.47%
2. BSEED MA Academic Requirements	10	21.74%
3. BSEED with MA units	10	21.74%
4. Master of Arts in Education	6	13.04%
<b>Total</b>	<b>46</b>	<b>99.99%</b>
<b>B. Number of Years of Expenses as Master Teacher</b>	<b>F</b>	<b>percent</b>
0-3 years	20	43.47%
4-6 years	15	32.61%
7-10 years	6	13.04%
11 above years	5	10.87%
<b>Total</b>	<b>46</b>	<b>99.99%</b>
<b>C. Relevant In-Service Trainings Attended</b>	<b>f</b>	<b>Percent</b>
Regional Level	25	54.35%
Division Level	46	100%
District Level	46	100%

Note: Multiple Responses

Table 2 presents the professional profile of the Grade 4 Mathematics Teachers in Amulung West District, Cagayan in terms of their highest educational attainment, number of years of experience teaching mathematics and relevant in-service training attended in mathematics. Looking at the table, the Grade 4 mathematics teachers are BSEED in MA units 10 or 21.74 percent and along the number of years of experience as mathematics teachers they belonged to 0-3 and 4-6 years of experience teaching mathematics 15 or 32.61 percent. And in terms of the relevant in-service training attended the Grade 4 mathematics teachers have attended various in-service trainings program. This still implies the need to update their professional growth and development of the Grade 4 mathematics teachers in Amulung West District, Cagayan.

#### Level of Performance of the Grade 4 Pupils In Mathematics Based On A Teacher Made-Test

This section presents the level of performance of Grade 4 learners in mathematics based on a teacher made test. Table 3 presents the data in answer to sub-problem 2.

**Table 3**  
**Level of Performance of the Grade 4**  
**Learners In Mathematics Based On A**  
**Teacher Made-Test**  
**N=58**

Level of Performance	F	Percent
Very Good	5	8.62%
Good	10	17.24%
Poor	23	39.65%
Fair	20	34.48%
<b>Total</b>	<b>58</b>	<b>99.99%</b>

Table 3 presents the level of performance of the Grade 4 learners in mathematics based on the analysis of teacher-made test administrated to them. Going ones the table, the Grade 4 learners were “poor” as revealed of their mathematics teacher’s 23 or 39.65 percent. This means that the Grade 4 learners should be given more exercises to improve their level of performance in mathematics.

**Problems Being Met By The Grade 4 Mathematics**  
**Teachers In The Teaching Mathematics As A Subject**  
**In The K-12 Curriculum**

This section presents the problems being met by the Grade 4 Mathematics Teachers in the Teaching Mathematics as a subject in the K-12 curriculum. The data is presented in Table 4 in answer to sub-problem 3.

**Table 4**  
**Problems Being Met By The Grade 4 Mathematics**  
**Teachers In The Teaching of Mathematics**

A. Teacher Related Problem	AWM	D.E
1. Inadequate Instructional Materials	3.60	S
2. Lack of Trainings in the K-12 curriculum	4.20	S
3. Lack of Administrative support	4.40	S
4. Inadequate assessment tools	3.70	S
5. Flexibility of time	3.50	S
<b>AWM</b>	<b>3.88</b>	<b>S</b>
B. Pupil Related Problem	AWM	D.E
1. Lack of interest to study mathematics as a subject in the K-12 curriculum	3.50	S
2. Lack of basic textbooks to meet the ratio of 1:1		
3. Lack of participation of slow learners	3.40	S
4. Frequent absenteeism		
5. Inability to participate in the various mathematics activities	4.20	S
	4.20	S
	3.50	S
<b>AWM</b>	<b>3.76</b>	<b>S</b>
C. Parent Related Problems	AWM	D.E
1. Met well oriented in the K-12 curriculum	4.20	S
2. Lack of understanding about mathematics as a subject in the K-12 curriculum	3.60	S
3. Refuse to participation in mathematics activities		
4. Inability to advice their children to participate in various mathematics activities	3.70	S

	4.20	S
<b>AWM</b>	<b>3.92</b>	<b>S</b>

Legend:

Scale	Statistical Range	Descriptive Equivalent
5 Serious (VS)	4.50-5.00	Very
4	3.50-4.49	Serious (S)
3 Moderately Serious (MS)	2.50-3.49	
2 Serious (SS)	1.50-2.49	Slightly
1 Problem (NAP)	1.00-1.49	Not a

Table 4 presents the problems being met by the Mathematics Teachers in the Teaching of Mathematics as a subject in the K-12 curriculum. It must be noted from the table that the identified problems in the teacher, Pupil and parents related-problems was rated to “Serious” problem with an average weighted mean of 3.88, 3.76 and 3.92 respectively. This means that there is to need to give possible solutions to the identified problems of the Grade 4 mathematics teachers in order to achieve greatly instruction.

**Proposed Recommendations To Enhance The Teaching Skills And Competencies Of The Grade 4 Mathematics Teachers In The Implementation Of The K-12 Curriculum.**

This section presents the output of this study which is a Proposed Recommendations to enhance the teaching skills and competencies of the Grade 4 Mathematics teachers in the implementation of the K-12 Curriculum. This is to answer sub-problem 5.

This proposed recommendation was based on the analysis of the findings of the study, focused on the level of performance of the Grade 4 learners and the problems being met by the Grade 4 mathematics teacher in the teaching of mathematics. Hopefully that this recommendation will help the Grade 4 mathematics teachers improved their teaching skills and competencies in mathematics, hence the proposed recommendations.

**Proposed Recommendations To Enhance The Teaching Skills And Competencies Of The Grade 4 Mathematics Teachers In The K-12 Curriculum.**

Areas of Concerns	Recommendations
1. Level of Performance	1. The level of performance of the Grade 4 learners in mathematics can be improved by way of giving more drill exercises as part of their home assignment. 2. Procurement of instructional materials such as basics textbook, teacher guide should be purchased through solicitation/donations from which spirited citizens. 3. The Grade 4 mathematics pupils should be motivated to home mathematics as a subject in the K-12 curriculum. 4. The parents of the Grade 4 mathematics pupils should be oriented in the implementation of the K-12 program.
2. Teacher Related-Problems	
3. Pupil Related-Problems	
4. Parent Related-Problems	

## CHAPTER 4

### SUMMARY, COMCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of findings and the recommendation offered based on the conclusions drawn.

#### SUMMARY

This study used the descriptive method of research in the assessment of professional profile of the Grade 4 Mathematics teachers in Amulung West District, Cagayan during the school year 2024-2025. The assessment included the professional profile of the Mathematics teachers in terms of their highest educational attainment, number of years of experience as Mathematics teachers and relevant in-service trainings attended; the level of performance of the Grade 4 Mathematics pupils and the problems being met by the Grade 4 Mathematics teachers in the teaching of Mathematics in the implementation of Mathematics in the K-12 curriculum. The output of this study is a proposed recommendations to enhance the teaching skills and competencies of the Grade 4 Mathematics teachers in Amulung West District, Cagayan. The forty-six (46) Grade 4 Mathematics teachers served as respondents of the study. Frequency, Percentage and Average Weighted Mean was used to treat the different sub-problems in the study.

#### Findings

1.0 Professional Profile of the Grade 4 Mathematics Teachers in Amulung West District, Cagayan

1.1. Majority of the Grade 4 Mathematics teachers finished BSEED with MA units 10 or 21.74 percent.

1.2. The Grade 4 teachers had a number of years of experience as Mathematics teachers 0-3 and 4-6 years of experience or 15 or 32.61 percent.

1.3. The Grade 4 teachers attended various in-service trainings from the Regional, Division to District Level.

2.0 Level of Performance of the Grade 4 Learners in Mathematics Based on a Teacher Made-Test.

2.1 The level of performance of the Grade 4 learners in Mathematics was “Poor” 23 or 39. 65 percent.

3.0 Problems Being Met By The Grade 4 Mathematics Teachers In The Teaching Of Mathematics As A Subject In The K-12 Curriculum.

3.1 Majority of the Grade 4 Mathematics Teachers revealed that they met problems in the teaching of mathematics to a “Serious” problem along teacher, pupil and parent related-problems.

4.0 Proposed Recommendations To Enhance The Teaching Skills And Competencies Of The Grade 4 Mathematics Teachers In Amulung West District, Cagayan.

4.1 The proposed recommendations can enhance the teaching skills and competencies of the Grade 4 Mathematics Teachers in Amulung West District, Cagayan.

#### CONCLUSIONS

Based on the analysis of the findings, the following conclusions were drawn:

1. The level of performance of the Grade 4 learners in Mathematics can still be improved.

2. The problem being met by the Grade 4 Mathematics Teacher can as given possible solutions.

3. The proposed recommendations can help the Grade 4 mathematics teachers improved their teaching skills in mathematics.

#### RECOMMENDATIONS

Based on the conclusions drawn the following recommendations are hereby offered.

1. The proposed recommendations are forwarded to the Grade 4 Mathematics Teachers for implementation in order to have effective implementation of the Mathematics Program.

2. The professional profile of the Grade 4 Mathematics teachers should be updated by way enrolling in the Graduate Program.

3. Similar studies be conducted in a writer scope, Regional, Division level to validate the findings of the study.

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### BIBLIOGRAPHY

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## APPENDICES

### APPENDIX A

Lyceum Northwestern University  
INSTITUTE OF GRADUATE AND PROFESSIONAL STUDIES  
Dagupan City, Pangasinan

The Schools Division Superintendent  
Schools Division of Cagayan  
Cagayan

Madam:

Greetings

This is to inform your good officer that I am conducting a research work entitled “Professional Profile of The Grade 4 Mathematics Teachers in Amulung West District, Cagayan” in partial fulfillment to the requirements for the degree Master of Arts In Education the school year 2024-2025.

In this connection kindly allow me to float my questionnaire to the Grade 4 Mathematics teachers in Amulung West District, Cagayan as my data gathering instrument.

Thank you very much and hoping for favorable action.

Very truly yours,

**Sgd. MARYSOL A. ORPILLA**  
Researcher

Noted:

**Sgd. CHRISTOPHER A. DE VERA, Ed.D**  
Thesis Adviser

### APPENDIX B

#### Questionnaire For Mathematics Grade 4 Teachers At Amulung West District, Cagayan

Dear Respondents:

Proudly I Am Conducting a research work entitled “Professional Profile of Mathematics 4 Teachers And Their Learners Perform In Amulung West District, Cagayan” in partial fulfillment to the requirements for the degree of Master of Arts In Education at the Lyceum Northwestern University Dagupan City, during the school year 2024-2025.

In this connection, kindly fill-up the attached questionnaire as my data gathering instrument in my research. Rest assured that you responses will be kept confidential.

Thank you very much for your kind cooperation.

Very truly yours,

**MARYSOL A. ORPILLA**  
Researcher

#### Part I. Professional Profile of Mathematics 4 Teachers In Amulung West District, Cagayan

**Directions:** Kindly put a check (√) mark on the space provided for each item.

##### A. Highest Educational Attainment

\_\_\_\_\_ BSEED

\_\_\_\_\_ BSEED MA Academic Requirements

\_\_\_\_\_ BSEED with MA Units

\_\_\_\_\_ Master of Arts In Education

\_\_\_\_\_ Others (PIS specify)

**B. Number of years of Education teaching Mathematics 4**

\_\_\_\_\_ 0-3 years

\_\_\_\_\_ 4-6 years

\_\_\_\_\_ 7-10 years

\_\_\_\_\_ Others (PIS specify)

**C. Relevant In-Service Trainings Attended In Mathematics**

\_\_\_\_\_ National Level

\_\_\_\_\_ Regional Level

\_\_\_\_\_ Division Level

\_\_\_\_\_ District Level

**Part II. Level of performance Of the Mathematics Grade 4 Learners in Amulung West District, Cagayan**

Directions: Kindly put a check (√) mark on the space provided for each item.

\_\_\_\_\_ Outstanding

\_\_\_\_\_ Very Good

\_\_\_\_\_ Good

\_\_\_\_\_ Poor

\_\_\_\_\_ Fair

**Part III. Problems Being Met By Mathematics Grade 4 Teachers In Amulung West District, Cagayan**

Directions: Kindly put a check (√) mark on the space provided for each column using the scale below in terms of degree of seriousness

<b>A. Teacher-Related Problems</b>	<b>VS 5</b>	<b>S 4</b>	<b>MS 3</b>	<b>SS 2</b>	<b>NAP 1</b>
1. Inadequate Instructional Materials 2. Lack of Trainings in the K-12 curriculum 3. Lack of Administrative support 4. Inadequate assessment tools 5. Flexibility of time 6. Others (PIS specify)					
<b>B. Pupils Related-Problems</b>	<b>VS 5</b>	<b>S 4</b>	<b>MS 3</b>	<b>SS 2</b>	<b>NAP 1</b>
1. Lack of interest to study mathematics as a subject in the K-12 2. Lack of basic textbooks to meet the ratio of 1:1 3. Lack of participation of slow learners 4. Frequent absenteeism 5. Inability to participate in the various mathematics activities 6. Others (PIS specify)					
<b>C. Parent Related Problems</b>	<b>VS 5</b>	<b>S 4</b>	<b>MS 3</b>	<b>SS 2</b>	<b>NAP 1</b>
1. Met well oriented in the K-12 curriculum 2. Lack of understanding about mathematics as a subject in the K-12 curriculum 3. Refuse to participation in mathematics activities					

4. Inability to advice their children to participate in various mathematics activities					
5. Others (PIS specify)					

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