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INNOVATIVE TEACHING STRATEGIES OF GRADE 3 MATHEMATICS TEACHERS

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Abstract : This study focused on the innovative teaching strategies of Grade 3 Mathematics teachers in Talavera South District, Division of Nueva Ecija during the school year 2023-2024. It looked into the profile of the Grade 3 Mathematics teachers; performance level of Grade 3 learners during the third quarter; significant relationship between the profile of the teachers and their performance in Mathematics; learners' attitude in learning Mathematics. The researcher found out that most of the Mathematics teachers are educationally qualified, with minimum teaching experience, and attended various seminars about Mathematics. The Grade 3 learners obtained a very satisfactory performance. The profile of the teachers is significantly related to the level of performance of the Grade 3 learners in Mathematics. The attitude of the learners towards Mathematics along school – related factors such as study habits and peers; family – related factors like parents; and siblings; and Teacher – related factor are the factors affecting the performance of the learners. The proposed motivational strategies could improve the attitude and performance of learners towards Mathematics. The researcher recommended that the proposed motivational strategies should be presented to the school head for its reproduction and utilization to help the Mathematics teachers. Teachers should make instructional materials to improve the performance of the learners. Such intervention/materials help them understand more clearly the concepts. Parents and teachers should join hands in improving the performance of the students. Teachers should tell the parents about the difficulties encountered by their children in learning Mathematics. Parents should also monitor the performance of their children in the school. They should give their full support in their studies like attending PTA meetings and have follow-ups in their studies. The least learned skills in Mathematics should be given emphasis in teaching. Teachers should use appropriate strategy and techniques to develop the skills and give more exercise for the students to master the skills.

Keywords: innovative, strategies,performance

INTRODUCTION

In this era of rapid technological advancements, it is imperative for every nation to embrace the strides made in the field of science in order to achieve significant economic growth. However, the progress in science can be hindered if a population lacks an appreciation for mathematics. It is crucial to understand that the study of mathematics plays a pivotal role in shaping a nation's scientific development.

For instance, consider a country that neglects the importance of mathematics in its educational curriculum. Without a strong foundation in mathematical concepts, individuals may struggle to comprehend complex scientific theories and applications. This can ultimately impede the country's ability to innovate and compete on a global scale.

The world today is more interconnected than ever before. From global trade to social media, the web of connections is vast and intricate. Every day, mathematics serves as a powerful tool to understand and navigate these connections. Whether it's calculating exchange rates for international business or analyzing social network algorithms, math plays a crucial role in uncovering possibilities and patterns.

For young learners, starting early with math practice is key. By honing their skills from a young age, students can develop a strong foundation for future success. For example, learning basic arithmetic lays the groundwork for more advanced topics like calculus and statistics. By mastering these fundamental concepts early on, students are better equipped to tackle complex problems and contribute to our society's progress.

In today's fast-paced world, innovation is the driving force behind societal advancement. By fostering a culture of innovation through early math education, we can ensure that our country remains at the forefront of progress. Just as a building needs a solid foundation to stand tall, a nation needs a well-educated populace proficient in mathematics to thrive in an ever-evolving global landscape. Therefore, investing in the mathematical skills of our youth is not just beneficial for individuals, but for the entire society as a whole.

Mathematics with its abstract symbolism, its logical structures and its wide application has a unique importance. There is no doubt that it is an important subject in the sense that mathematical skills are important tools in solving a variety of problems which one encounters in his daily life. It is a fact that mathematics plays an important role in liberal education and, consequently, in man's life, because it is needed in practically all field of knowledge. Mathematics, so remarkable and important subject, should therefore be taught as effectively as possible.

Thus, if we were to be exact, we must know our subject matter well before teaching knowledge, skills and concepts. And this is the best answer to the problem that learners perform low in their class. Teachers teaching Mathematics in the elementary level must be knowledgeable and must have a wide understanding of the development of the different mathematical skills.

Today, the teaching of mathematics is one of the most disliked subjects because some teachers cannot understand and appreciate the value of numbers. Sometimes it may lead to the downfall of the Mathematics program due to the shortcomings of teachers teaching Mathematics skills. Thus, if our learners were to play an intelligent part in the activities of the world around us, they must be able to interpret and use mathematical skills, concepts and relationships.

Mathematics is around us. It is present in different forms. Right from getting up in early hours of the day to the ringing of an alarm, reading time on a watch, rounding a date on a calendar, picking up the phone, preparing a recipe in the kitchen, to wait for the counts of whistles of the cooker, managing money, traveling to some places, to exchanging currency at a ticket outlet while availing oneself of a public conveyance or checking up the mileage of your car, halting at the filing station, attending to a roll call at school, getting scores in the class exams, even meeting new friends, the list is just endless if one goes on to note down the situations when our computational skill, or more specifically simple mathematics comes to play a role; almost every next moment we do the simple calculations at the back of our mind.

The Mathematics teacher plays an important role in providing the learners a conducive learning environment. The goal of all educational reforms must be directed towards the learning of students under the K – 12 curriculum as implemented by the Department of Education. This program and project by the DepEd must all center on making learners learn how to compute difficult problems in the teaching and developing of mathematical skills.

In the Philippines, the mission of the Department of Education is to protect and promote the right of every Filipino to quality, equitable, culture – based, and complete basic education where students learn in a child – friendly, gender – sensitive, safe, and motivating environment; where teachers facilitate learning and constantly nurture every learner,; where administrators and staff, as stewards of the institution; ensure an enabling and supportive environment for effective learning to happen; and family, community, and other stakeholders are actively engaged and share responsibility in developing life – long learners (www.deped.gov.ph)

On April 13, 2005, then DepEd Secretary Florencio Abad issued Memorandum No. 117 s. 2005 on the conduct of a training workshop on Strategic Intervention for successful learning. This aims to enhance teachers' skills in test analysis and interpretation and capacitate them in developing intervention materials for remediation and enrichment of learning. With this, the government and the Department of Education are stepping up in their efforts to upgrade the quality of Science and Mathematics education in the country. There are funds being allocated for the purchase of Science and Math instructional materials and devices and the conduct of teacher training. Another incentive being given to the teachers is provided by the mandate and implementation of DepEd Order No. 79, s. 2012 dated October 10, 2012 granting step increment for teachers with specialization in Science or in Mathematics to boost their teaching on these primary subjects. As propounded by Education Secretary Bro. Armin A. Luistro, "Science and Mathematics are fundamental tools of industrialization which we certainly need to strengthen our global competitiveness". (www.deped.gov.ph)

It is claimed that the Mathematics teacher needs to know the learning style preferences of the students in class and how to work effectively with them. That is, instructional decisions for the whole class and provisions to meet their needs can be made easily through the use of varied information regarding the learner. One of the major purposes of Mathematics instruction is to arouse and develop among students the appreciation for the subject. This includes knowledge, skills and attitudes to equip the students with mathematical concepts and principles and values that are expected to be acquired during the teaching – learning situations.

Although studies of teachers' mathematical knowledge have not demonstrated a strong relationship between teachers' mathematical knowledge and their students' achievement, teachers' knowledge is still likely a significant factor in students' achievement. That crude of measures of teacher knowledge, such as the number of mathematics courses taken, do not correlate positively with student performance data, and supports the need to study more closely the nature of the mathematical knowledge needed to be taught and to measure it more sensitively.

Mathematics anxiety results in poor performance rather than the reverse. From the International Mathematics Olympiad, details showed that the Philippines ranked 79th out of 82 countries in 2003 and 80th out of 85 countries in 2004. Based on the possible maximum points of 225, China got the highest score of 220 points, Vietnam 126, Thailand 9, and the Philippines 16 points (DepEd, 2003). It is alarming that Filipinos are found lacking in the ability of basic mathematics. Research studies being done regarding the basic mathematical knowledge of teachers show their deficiency.

Conformably, the researcher learned through conferences, and continuously read in the periodicals about the deterioration of the quality of education in the country. Survey also shows that the secondary school students are not prepared to enter their level, and the former Secretary of Education Edilberto de Jesus designed the "bridging program" which was unpopular to the people (Philippine Star, 2004). Lastly, the International Mathematics and Science tests results showed that the Philippines is near the lowest end of the ranking among participating nations.

Mistretta (2004) found out in his study that students' confidence in solving and analyzing problems in Mathematics, their interest, enjoyment, and their disposition toward mathematics is influenced by learning environment they encounter. Attitudes were found to be shaped in great part by the learning environments one experiences like their teacher and the classroom atmosphere.

Bete (2005) investigated the relationship of mathematics achievement of the fourth year high school students to their general scholastic ability, attitude toward mathematics and educational aspirations. The investigation revealed a significant and positive relationship between students' mathematical achievement and their general scholastic ability with the effect of their attitude toward mathematics and educational aspirations.

Fullarton (2003) as cited in Cabahug and Ladot (2005), stated that poor attitude towards mathematics is often being said as one of the contributing factors to lower participation and less success in the courses. Neale (2010) still cited in Cabahug and Ladot (2005), said that the attitude towards Mathematics affects performance as performance in turn affects attitudes.

In the study conducted by Cabahug and Ladot (2005), there were 941 students in four school years excluding transferees and those who withdrew from Math 11 and Math 17 were the subjects of the study. The dependent variable was the students' performance in Math 11 and Math 17 measured by a dichotomous criterion of "pass" or "fail". The researchers stated that the UPCAT mathematics ability, University predicted grade, attitude towards the subject, degree program and type of high school the students graduated from are the factors of success and failure of students. The results of the study showed that the students who took up Math 11 and Math 17 got a passing rate of 73.3 and 73.2 respectively. The highest failure rate is 36% for Math 11 and 31.2% for Math 17. The researchers stated that these results showed that the training of the incoming freshmen is deficient.

Furthermore, Cabahug and Ladot (2005) said that for students who were required to take Math 11, their only significant factor is the attitude of students toward the subject. The results of their study also showed that for students enrolled in degree programs requiring Math 17 in addition to UPCAT mathematical ability and attitude towards mathematics, the type of school is also a significant factor.

On the positive side, the participation of the Philippines revealed that the Filipino teachers require the practice of computational skills. They are also with the same level of their international counterparts in requiring their students to explain the reasons behind ideas. However, the Filipino teachers are less inclined to require students to write equations to represent relationships, but conversely higher in requiring the students in repeating and analyzing relationships using tables, charts or graphs, and working on problem for which there is no immediate obvious method of solution (TIMMS – R, 1998–2000)

In the study of Selfi et.al. (2012) on students' difficulties in solving mathematical word problems from their teacher perspectives, the results showed that the students' difficulties mostly sprung from their disabilities in representation and understanding of word problems, making a plan and defining the related vocabularies. The findings revealed that the causes of the student difficulties, unfamiliar contexts in problems and using inappropriate strategies. Finally, teachers suggested to help students in teaching them to look for a pattern, draw a picture and rewording the problems.

The findings of Somera's study (2007) are relevant to this present study. Somera's study was also about Mathematics achievement. The salient findings of her study that the researcher found to be of interest are the following: the level of Mathematics achievement of the Grade V pupils in terms of Knowlegde, Comprehension and Analysis Skills was at "Satisfactory" level and the level of their achievement in Application skills was at "Very Satisfactory". On the whole, the level of Mathematics achievement of the Grade V pupils was at "Very Satisfactory" level. Pupils at the barrio achieved lower in Math than those pupils in the town proper or Poblacion. Pupils whose parents had higher educational attainment performed better than those pupils whose parents had lower educational attainment. Pupils with higher grades in English performed better than pupils with lower grades in English.

Domingo (2010) ascertained the relationship between the word problem solving ability and the extent of practice in solving word problem, extent of assistance of parents to their children in doing assignments, amount time allotted to problem solving ability, computational ability, and reading ability. The co-relational design was used in the study. The subjects of the study were one hundred fifty (150) Grade V pupils from the five schools of the district. A teacher-made test was the main instrument in the study. The problem solving test and the reading ability test were content validated. The findings revealed that the average proficiency level of the pupils in word problem solving in the thirteen learning areas in mathematics was "very low".

De Veas (2012) in her study "A Mathematics Enrichment Program for Bacnotan National High School, revealed that in terms of academic profile, the final grade of the students were described as very good and their mean grade was good; involvement in Math-related activities was slightly involved (2.09), study habits rated as sometimes/moderately favorable (3.01), parents learning support was much supportive (3.50), most of them had visual learning style and math anxiety level was fairly anxious (3.03); in terms of non-academic, more of the respondents were females, most of them were middle born (40.36%), most of the parents were high school graduates (46%) and were within the P10,000-below monthly family gross income bracket (63.27%).

The former study and the present study are similar in the sense that both studied the performance of the students in Mathematics. However, De Veas' studied dealt with the determinants in the performance of the students of Bacnotan National High School and constructed a Mathematics program while the present one dealt with the performance level of the Grade IV pupils in solving word problems.

Delabajan (2011) investigated the performance of grade six pupils focusing on the mathematical errors committed in solving word problems involving whole numbers and fractions. He utilized the descriptive analytical method of research using teacher-made test and diagnostic interview as instrument for gathering data. His study revealed that the performance of grade six pupils in the diagnostic test was described as "below average" in the four skills such as comprehension, transformation, process and encoding. While they were "above average" in reading recognition skills in solving word problems involving word problems and fractions. He concluded that the pupils could recognize but they cannot comprehend, transform, process, and encode. Thereby making them difficult to solve word problems based on the ranking of mathematical errors.

Process is the most difficult skill for grade six pupils followed by encoding, transformation and comprehension. These showed that these are complex skills that need to be mastered and well developed.

In the study of Jones and Byrnes (2006), characteristics of students who benefited from high quality mathematics were found out. In particular, students' information was gathered concerning: a) the amount of mathematics students knew prior to the class, b) their motivation for learning mathematics, c)the number and types of interactions they had with the teacher during class, d) degree of self-regulation, e) general aptitude. Students, who were self-regulated, had strong mathematics backgrounds and had low level of frustration.

Fernandez (2013) determined the performance level of the Grade VI pupils in Mathematics in Lingayen I District. The study found out that pupil-respondents are mostly eleven (11) years old whose academic rating in Mathematics in the First Quarter Examination ranged from 80 to 84 and with parents having monthly income of P10,000 below. The pupil-respondents have a low performance level with scores ranging from 16-20. The pupils have difficulty in solving 2 to 3 step word problems involving decimals including money, dividing mixed decimals by mixed decimals and dividing mixed decimals by whole numbers.

Carreon (2009) conduced a study on the level of competency in Mathematics of the Grade V pupils at Don Mariano Marcos Memorial State University (DMMMSU). She administered a 45-item exam which is categorized in 9 areas: whole numbers, rational numbers, ratio and proportion, percent, simple probability, integers, geometry, measurement and graphs.

With the spiraling cost of education today, many parents are very anxious about their children's academic achievement. As the students enter the secondary level of scholastic pursuit, they are faced with the complexity of subjects required of them coupled with the biological – physical, emotional – psychological changes. They encounter various aspects of stress and pressures. Thus, a high rate of academic failure is unavoidable.

Bristol (2015) cited students which have low achievement in the cognitive and intellectual skills have not acquired problem solving skills, logical skills, critical thinking skills and these can be carried out from the elementary level to the secondary level as well as to the tertiary level.

In 2012, Rocaberte developed a Proposed Skillbook in Mathematics of First Year High School Students to address the weaknesses in Math of first year high school students. It is descriptive in the sense that it described existing conditions relative to the achievement levels in Mathematics of first year high school students of Carael National High School. The data needed in the study came from 164 high school freshmen of Carael National High School enrolled in the school year 2011 – 2012. The results of their Division Achievement Test (DAT) in Grade VI Mathematics, as well as their grades in Grade VI Mathematics comprised the data utilized in the study. Based on the data revealed, a thorough consideration of the finding lead to conclusion that the performance in pre-high school mathematics as well as in first year school mathematics needs much improvement. It is hereby recommended that the skillbook developed by the researcher be adopted for use by teachers and students of first year high school Mathematics.

A study of the mathematical foundation of fourth year students was made by Cortez (2011). His study had the following findings: a) the students had poor understanding of mathematical terms due to poor vocabulary, b) they had insufficient drills and practices in the actual use of ruler, compass, and protractors, c) they lacked mastery in the fundamentals of mathematics, d) mathematics teachers had no knowledge of the mathematical skills needed for physics study, and e) trigonometry wasn't included in fourth year curriculum

Almendra (2010) also recommends in her study that teachers should make the results of the test as the basis in improving the quality in their instructions. They should focus on the needs of the students especially of those who had poor performance in the test. She also added that regular evaluation should be done so that students will gain mastery in the different competencies.

Aguele (2010) in his study "The Effectiveness of Selected Teaching Strategies on the Remediation of Process Errors Committed by Students in Mathematics" employed the quasi – experimental design. Sample for the study consisted of 207 students drawn from six senior secondary schools in Edo State. The diagnostic test on Mathematics (DIATOM) was used to collect data for the study. Data collected were analyzed using analysis of covariance (ANCOVA) and z – test for two population proportions. Results of data analysis revealed that the direct instruction (DI) was a more effective strategy for the remediation of process errors committed by students in Mathematics. The study further recommended that enough practice activities should be given to students during class sessions to assist them develop mastery of content taught.

Within the context of the aforementioned premises, authorities in the educational system never stop devising, experimenting, and trying out approaches for learning. There is a never – ending flow of revisions and redirections introduced in the schools and in the world of work.

This researcher has been teaching Mathematics in the elementary level; she has continuously experienced some difficulties. These difficulties of the researcher in the delivery of instruction are in part, a result of findings of the low readiness level of pupils.

Statement of the Problem

This study sought to assess the performance level and attitude toward Mathematics of Grade 3 learners in Talavera South District, Division of Nueva Ecija during the school year 2023-2024 as basis for innovative teaching strategies in teaching Mathematics.

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

1. What is the profile of the Grade 3 Mathematics teachers in terms of the following:
    1.1 Highest Educational Attainment;
    1.2 Length of Service; and
    1.3 Relevant Trainings Attended;
2. What is the performance level of Grade 3 learners last school year?
3. Is there a significant relationship between the profile of the teachers and their performance in Mathematics?
4. What is the extent of learners' attitude in learning Mathematics along the following concerns:

a. School – related factors
    a.1 Study habits
    a.2 Peers
b. Family – related factors
    b. 1 Parents; and
    b.2 Siblings
c. Teacher – related factor
    c.1 Teaching method

5. Based on the findings, what innovative teaching strategies can be proposed to improve the performance and attitude of learners towards Mathematics?

METHODOLOGY

Research Design

The study used descriptive-developmental method with questionnaire as the research instrument. Descriptive research method obtains facts about existing conditions or significant relationship between current phenomena. Developmental because it developed problem-solving instructional materials in Mathematics for Grade 3 learners.

This study focused on the performance level and attitude toward Mathematics of Grade 3 learners during the school year 2023-2024 as basis for innovative teaching strategies to improve the performance of the learners. It looked into the profile of the Grade 3 Mathematics teachers; performance level of Grade 3 learners last quarter; significant relationship between the profile of the teachers and their performance in Mathematics; learners' attitude in learning Mathematics.

Sources of Data

The respondents of this study were the Grade 3 Mathematics teachers and Grade 3 learners of Talavera South District, Division of Nueva Ecija during the school year 2023-2024.

Instrumentation and Data Collection

The main data-gathering instrument of the study was a questionnaire checklist.

The questionnaire was formulated by the researcher and was validated by the Mathematics Supervisor and Master teachers. Suggestions were incorporated in the final draft of the test.

A formal permission to conduct the study and to float the questionnaire was secured from the Schools Division Superintendent of Nueva Ecija.

The researcher personally administered the questionnaire to the respondents in each section and immediately checked the papers in order to get the least learned skills.

Tools for Data Analysis

In this study, the researcher used the following statistical measures to analyze the data for the problems.

To answer sub-problem 1 on the profile of the Grade 3 Mathematics teachers, frequency counts and percentages were used.

$$\text{Percentage} = \frac{F}{N} \times 100$$

Where:

F = Frequency

N = total number of respondents

To answer sub-problem 2 on the performance of the Grade 3 learners in last school year, frequency and percentage were used.

To answer sub-problem 3, the significant relationship between the profile of the Grade 3 learners and their performance last school year, Pearson-r was used.

To answer sub-problem 4 on the learners' attitude in learning Mathematics, average weighed mean was used.

RESULTS AND DISCUSSION

Profile of Grade 3 Mathematics Teachers

Table 1A. Profile of Grade 3 Mathematics Teachers in Terms of Highest Educational Attainment

Highest Educational Attainment	Frequency	Percentage
With MA Units	22	57.90
MAEd/Med	16	42.10
Total	**38**	**100**

It can be gleaned in Table 1A that a great number of Grade 3 Mathematics teachers have MA units with 22 or 57.90%. Some 16 or 42.10% are MAEd or MEd graduates. It could be observed from the data that there are more elementary teachers who are pursuing graduate studies because of the increase in salary that goes alongside with the promotion as teachers, a good number of them subscribe to the importance of professional growth. It can also be noted that some of them are graduate of masteral degree because they are aiming for higher position like being school head or Master Teachers.

Table 1B. Profile of Grade 3 Mathematics Teachers in Terms of Number of Years of Experience in Teaching

Length of Teaching Experience	Frequency	Percentage
0-5 years	6	15.79
6-10 years	18	47.37
11-15 years	14	36.84
Total	**38**	**100**

It is reflected in Table 1B that most of the Grade 3 Mathematics teachers have been teaching or 6-10 years with 18 or 47.37%. This is followed by 11-15 years with 14 or 36.84% and 0-5 with 6 or 15.79%. The result shows that the teacher-respondents have average length of service.

Table 1C. Profile of the Grade 3 Mathematics Teachers

Terms of Relevant Training Attended

Level	Frequency	Percentage
Division	38	100
Regional	19	50

***Multiple Responses**

It is shown in Table 1C that all Grade 3 Mathematics teachers had attended Division training. On the other hand, 19 or 50% of them had attended Regional training. The results show that Grade 3 Mathematics teachers give importance to training or seminars because of the belief that experience is the best teachers. Through seminars, they can improve their competencies and skills in teaching.

Table 2. Performance Rating Last School Year

Academic Rating during Third Quarter	Frequency	Percentage
Outstanding (90 and above)	48	35.56
Very Satisfactory (85-89)	54	40.00
Satisfactory (80-84)	20	14.81
Fair (75-79)	13	9.63
Total	**135**	**100**

It can be seen in Table 2 that majority of the Grade 3 learners obtained a performance rating of Very Satisfactory with 54 or 40%. There are also 48 or 35.56% who got an Outstanding Performance. Some of the received a Satisfactory performance with 20 or 14.81%. The remaining 13 or 9.63% got a Fair rating.

The result supports the study of Ledda (2006) when she claimed that lack of instructional materials contributes to the low performance of the pupils. Many of the pupils are deficient with their knowledge of Mathematics. It is indeed an observation that lack of instructional material could be one of the reasons why pupils are not performing well in the class, not gaining attention and not motivated to learn and participate in every classroom activity.

Table 3. Correlation between the Profile of Teachers and the Level of Performance of the Learners

Profile of Teachers	Pearson Correlation	Sig. (p)	Interpretation	Correlation Interpretation
Highest Educational Attainment	.211	.002	Significant	**Low Correlation**
Length of Service	.214	.001	Significant	**Low Correlation**
Relevant Training Attended	.181	.001	Significant	**Low Correlation**
Overall Score	**.221**	**.001**	**Significant**	**Low Correlation**

The results revealed that statistically, profile of teachers and the level of performance of the learners (r=.221) had low correlation. The p-value 0.001 would suggest that, overall, correlations made are highly significant which gives probability of error less than 1% (i.e. 0.1%) in the null hypothesis.

It concludes that statistically, there is no enough evidence to say that there is a significant relationship between the profile of the teachers and the level of performance of the Grade 3 learners last school year. Thus, the null hypothesis is accepted since the statistics reveals that the correlations made were under the range of low correlation to negligible correlation. This is also consistent with the p-values computed that out of four competencies, three are considered to be significant either at 0.01 or 0.05 level. This implies that it exceeds the value of probability to be considered in order to determine that the null hypothesis made is true.

Grade 3 Learners' Attitude in Learning Mathematics

The Grade 3 learners' attitude in learning Mathematics in terms of school-related factors, family-related factors, and teacher-related factors is shown in Table 4A-4C.

It is clearly shown in Table 4A that Grade 3 learners' attitude in learning Mathematics in terms of practice/habits is moderate extent as reflected by the average weighted mean of 3.22.

A. SCHOOL - RELATED FACTORS

Table 4A. Grade 3 Learners' Attitude in Learning Mathematics in Terms of Practice/Habits

Practice / Habits	WM	DE
1. Studies Math lessons daily because it is a must.	3.50	ME
2. Studies Math only if there are assignments.	3.24	ME
3. Studies Math only when there is a quiz / test scheduled.	3.06	ME
4. Studies Math only when told by parents.	3.25	ME
5. Studies Math only when told by teachers.	3.01	ME
6. Studies Math only when told by friends, classmates, and peers.	3.22	ME
7. Studies Math only when seen others studying the subject	3.09	ME
8. Studies Math because they like the subject.	3.14	ME
9. Studies Math because they like the teacher.	3.54	ME
10. Studies Math only when there is no work to do at home.	3.12	ME
AWM	**3.22**	**ME**

The indicator "Studies Math because they like the teacher" got the highest mean rating of 3.54 while the lowest mean rating of 3.01 was given to the indicator "Studies Math only when told by friends, classmates, and peers" though both were described as moderately extent. The result shows that teachers need to encourage the learners to improve their attitude towards Mathematics so that their performance will also improve.

Table 4B. Grade 3 Learners' Attitude in Learning Mathematics in Terms of Peer Influence

Peer Influence	WM	DE
1. Joins classmates for a group work in Math.	3.16	ME
2. Joins classmates who cut classes especially during Math periods because it is difficult and boring.	2.54	LE
3. Goes with classmates who do not mind Math subjects because the teacher is unlikable.	3.12	ME
4. Joins friends do assignment.	2.76	ME
5. Prefers going with friends and classmates than attending Math period because I feel sleepy listening to lecture.	3.35	ME
6. Joins friends and classmates who can teach me solve exercises and problems.	2.99	ME
AWM	**2.99**	**ME**

In terms of peer influence, a 2.99 average weighed mean was generated which is described as moderate extent. The indicator "Prefer going with friends and classmates than attending Math period because I feel sleepy listening to lecture" got he highest mean of 3.35 which means that learners are disinterested in learning Mathematics because of the influence of peers and sometimes due to teacher's strategy in teaching the lesson. On the other hand, the indicator "Joining classmates who cut classes especially during Math periods because it is difficult and boring" received a weighted mean of 2.54 which is also described as low extent.

B. FAMILY – RELATED FACTORS

In terms of family- related factors such as parents, Grade 3 learners' attitude in learning Mathematics obtained an average weighed mean of 3.21 which is described as moderate extent. The indicator "The parents praise good work and high grades achieved by the pupils in Mathematics" received the highest mean of 3.32 while the lowest mean rating of 3.14 was given to the indicator "The parents of the students give them enough time to study their lessons". The result shows that parents moderately influence their sons/daughters to study Mathematics harder.

Table 5A. Grade 3 Learners' Attitude in Learning Mathematics in Terms of Parents

Indicators	WM	DE
1. The parents of the learners encourage them to devote more time to study Mathematics very well.	3.23	ME
2. The parents of the learners give them enough time to study their lessons.	3.14	ME
3. The parents of the learners do not disturb them when they are studying.	3.17	ME
4. The parents of the learners discuss assignment in Mathematics with me them.	3.19	ME
5. The parents praise good work and high grades achieved by the learners in Mathematics.	3.32	ME
	3.21	**ME**

The Grade 3 learners' attitude in learning Mathematics in terms of siblings got an average weighed mean of 3.24 which is described as moderate extent. The highest mean rating was given to the indicator "The siblings of the learners view television programs / VCD's about Mathematics with them, with proper assistance and guidance" with 3.43 which is described as "extent".

On the other hand, the lowest mean rating of 3.12 was given to the indicator "The siblings of the learners give them Mathematics book as gift." The result shows that the learners' siblings influence them moderately in learning Mathematics.

Table 5B. Grade 3 Learners' Attitude in Learning Mathematics in Terms of Siblings

Siblings	WM	DE
1. The siblings of the learners give them Mathematics book as gift.	3.12	ME
2. The siblings of the learners view television programs / VCD's about Mathematics with them, with proper assistance and guidance.	3.43	E
3. The siblings of the learners check them if they prepare their things and other materials in Mathematics before going to school.	3.18	ME
4. The siblings of the learners help them to do their assignments regularly especially in Mathematics.	3.14	ME
5. The siblings of the learners check the answers to their assigned Mathematics problems / concepts	3.35	ME
	3.24	**ME**

C. TEACHER – RELATED FACTORS

Table 6. Grade 3 Learners' Attitude in Learning Mathematics in Terms of Teaching Method / Strategy

Teaching Method / Strategy	WM	DE
1. Uses the chalk and board in lecturing.	3.45	E
2. Explains the lesson before giving exercises to learners.	3.41	E
3. Gives exercises to students before explaining the lesson.	3.54	E
4. In problem - solving, explains the procedures / steps, then solve the problem and after which let the learners solve similar problems.	3.61	E
5. Presents a solved problem and requires the learners discover the procedures or steps in solving the problem.	3.31	ME
AWM	**3.46**	**E**

In terms of Grade 3 learners' attitude in learning Mathematics along teaching method/strategy of teachers, it obtained an average weighted mean of 3.46 which is described as "extent". The highest mean rating of 3.61 was given to the indicator "In problem - solving, explains the procedures / steps, then solve the problem and after which let the learners solve similar problems." The lowest mean rating on the other hand was given to 3.31 which is considered "moderate extent". The result shows that Mathematics teachers are exerting a lot of effort in order to teachers the learners well. They possessed positive attitude towards the learners and towards the subject.

Recommendations

On the basis of the foregoing findings and conclusions, the following are recommended:

1. The proposed motivational strategies should be presented to the head of the school for its reproduction and utilization to help the Mathematics teachers.
2. Teachers should make instructional materials to improve the performance of the learners. Such intervention/materials help them understand more clearly the concepts.
3. Parents and teachers should join hands in improving the performance of the students. Teachers should tell the parents about the difficulties encountered by their children in learning Mathematics. Parents should also monitor the performance of their children in the school. They should give their full support in their studies like attending PTA meetings and have follow-ups in their studies.
4. The least learned skills in Mathematics should be given emphasis in teaching. Teachers should use appropriate strategy and techniques to develop the skills and give more exercise for the students to master the skills.

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