



GRADE 1 MATHEMATICS INSTRUCTIONS IN DUPAX DEL SUR DISTRICT:AS PERCEIVED BY THE TEACHERS

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ABSTRACT

This study assessed the current status of Mathematics instruction among Grade 1 teachers in the public elementary schools of Dupax del Sur District, Nueva Vizcaya for the School Year 2025–2026. It utilized the descriptive-survey method involving twenty (20) teacher-respondents. Data were gathered through a structured questionnaire focusing on teachers' profile, adequacy of instructional materials, teaching methods and strategies, evaluative techniques, administrative and supervisory support, problems encountered, and interventions employed.

Findings revealed that the general objectives of Mathematics were realized, and instructional materials, teaching strategies, and evaluative techniques were perceived as effective. Demonstration and discovery methods emerged as highly utilized strategies, while written tests were the most effective evaluation tool. Administrative and supervisory support were received on a regular basis, particularly in terms of recognition and feedback. However, challenges such as learners' weak understanding of problems and financial constraints were identified as notable concerns. Interventions like home visitation, tutorials, and math-related activities were implemented but only on a limited basis.

The study concludes that while Mathematics instruction in the district is functioning effectively, there is still a need to strengthen intervention strategies and enhance support systems. Recommendations include improving instructional materials, increasing teacher training opportunities, and implementing more consistent remedial and enrichment programs to address learners' difficulties.

KEYWORDS: *Mathematics instruction, Grade 1 pupils, teaching strategies, instructional materials, evaluative techniques, administrative support, learning difficulties, intervention strategies, descriptive survey, elementary education*

INTRODUCTION

Early childhood is widely recognized as a critical stage of rapid growth and active concept formation. During this period, children transition from the pre-operational stage to the concrete operational stage, gradually shifting from reliance on visual representations toward more advanced mental processes and logical thinking (Flakes & Kline, 2019).

Mathematics, as an essential component of everyday life, is learned through a gradual and continuous process that begins with foundational concepts. Young learners are consistently exposed to mathematical ideas in their daily experiences, and these are often developed through interaction with concrete objects suited to their developmental level. For this reason, a stimulating and learner-centered environment is necessary to support the development of mathematical understanding and skills. Children are guided from concrete to abstract thinking, from simple to complex ideas, and from exploratory attempts to more structured reasoning. Studies have shown that learning acquired through active engagement is more effectively retained (Fleege, 2020). Moreover, the sustained use of concrete materials, particularly in the early grades, has been linked to improved performance in mathematics.

Mathematical concepts are integrated across preschool education programs; thus, the curriculum must be carefully designed in alignment with the K–12 framework. Instructional programs

should be based on meaningful experiences that enhance learners' ability to express ideas and explore new knowledge. Teaching methods and materials must align with instructional objectives to ensure effective learning. It is also important to cultivate learners' confidence in their ability to understand mathematics and to reduce fear or anxiety toward the subject. As children develop confidence and awareness of their learning processes, their cognitive abilities are strengthened.

One of the primary goals of early childhood education is to develop learners who are creative, capable of problem-solving, sensitive to their environment, and effective communicators with the ability to think scientifically. In support of the K–12 curriculum, a variety of instructional materials and teaching strategies are integrated into mathematics instruction to foster interest and engagement. These approaches help learners appreciate mathematics by encouraging them to think critically, understand relationships, and solve problems. Strategies such as presenting real-life situations, exploring authentic contexts, and encouraging imaginative thinking contribute to more meaningful and lasting learning experiences. As a result, mathematical concepts become more relevant and connected to real-life applications. Anchored on these ideas, this study aims to examine the status of Mathematics instruction among Grade 1 pupils in the Dupax del Sur District, Nueva Vizcaya.



Objectives of the Study

This study aimed to assess the current status of Mathematics teaching to the Grade 1 pupils in Dupax Del Sur District of Dupax Del Sur, Nueva Vizcaya

Specifically, it sought to answer to the following questions:

1. What is the profile of the teacher- respondents as to:
 - a. Age
 - b. Gender
 - c. Civil status
 - d. Number of Years in Teaching
 - e. Highest educational qualification,
 - f. Present Position
 - g. Performance Rating
 - h. Trainings/seminars attended
2. What are the extent of the realization of the General Objectives of Mathematics 1.
3. How adequate are the instructional materials used by teachers in teaching mathematics 1 as prescribed in the K to 12 curriculum?
4. What is the extent of the methods, techniques and strategies used in teaching Mathematics 1?
5. What evaluative instruments are used by the teachers in gauging the results of instruction?
6. What are the administrative and supervisory support rendered and how often?
7. What is the extent of the problems encountered as perceived by the Grade 1 teachers?
8. Intervention posted to cope with the problems encountered.

METHODOLOGY

This study employed a descriptive-survey quantitative research design to assess the status of Mathematics instruction among Grade 1 teachers in the public elementary schools of Dupax del Sur District, Nueva Vizcaya for the School Year 2025–2026. The descriptive method was utilized to present and describe the existing conditions in terms of teachers' profile, adequacy of instructional materials, teaching methods and strategies, evaluative techniques, administrative and supervisory support, problems encountered, and interventions implemented. This approach enabled the researcher to obtain a clear and systematic understanding of the current practices in Mathematics instruction.

Sampling Design

The respondents of the study consisted of Grade 1 teachers teaching Mathematics in the public elementary schools of Dupax del Sur District, Nueva Vizcaya. The study employed total enumeration, wherein all identified Grade 1 teachers in the district were included as participants. A total of twenty (20) teachers participated in the study. This sampling ensured that all relevant respondents directly involved in teaching Mathematics at the Grade 1 level were represented.

Research Instrument

Data were gathered using a structured questionnaire developed by the researcher based on related literature and studies. The instrument was composed of five parts: (1) respondents' profile, (2) adequacy of instructional materials, (3) methods, techniques, and strategies used in teaching Mathematics, (4) evaluative techniques employed, (5) administrative and supervisory support, (6) problems encountered, and (7) interventions undertaken.

To ensure the validity and reliability of the instrument, a try-out was conducted among selected teachers who were not part of the actual respondents. Suggestions and comments from the pilot testing were incorporated into the final revision of the questionnaire. In addition, structured interviews were conducted to supplement and validate the data obtained from the questionnaire.

Statistical Design

The data gathered were analyzed using appropriate statistical tools. Frequency and percentage were used to describe the profile of the respondents. The weighted mean was utilized to determine the extent of the adequacy of instructional materials, effectiveness of teaching methods and strategies, evaluative techniques, administrative and supervisory support, problems encountered, and interventions employed.

A five-point Likert scale was used to interpret the responses. These statistical treatments enabled the researcher to systematically analyze and interpret the data, providing a clear basis for conclusions and recommendations.

RESULTS AND DISCUSSIONS

Profile of the Respondents

Table 1
Distribution of the Respondents by Age

Particulars	Frequency	Percentage
20-25	8	40.00
26-30	3	15.00
31-35	5	25.00
36-40	2	10.00
41 and above	2	10.00
Total	20	100.00

On the distribution of respondents by age, there are 8 respondents or 40.00 percent who are aged 20 to 25. There are 3 respondents or 15.00 percent who are aged 26 to 30. There are 5 respondents or 25.00 percent who are aged 31 to 35. There are 2 respondents or 10.00 percent are aged 36 to 40. There are 2 respondents or 10.00 percent who are aged 41 and above. The table shows that all the age-range is represented.



Table 2

Distribution of Respondents by Gender

Particulars	Frequency	Percentage
Male	4	20.00
Female	16	80.00
Total	20	100.00

The table shows that there are 4 male respondents or 20.00 percent and 16 female respondents or 80.00 percent. The data shows that female respondents dominates the male. This shows that most of the mathematics teachers teaching grade 1 are female. The table shows that majority of the teachers especially in lower grades should be females.

Table 3

Distribution of Respondents by Civil Status

Particulars	Frequency	Percentage
Single	6	30.00
Married	14	70.00
Total	20	100.00

The table shows that there are 6 respondents or 30.00 percent who are single while there are 14 respondents or 70.00 percent who are married. The distribution of respondents by civil status shows a high number of married teacher respondents, this is due to the fact that most of the respondents are in the marrying age. Married teachers are more caring to pupils because they already have an experience on taking care of their children.

Table 4

Distribution of Respondents by Highest Educational Attainment

Particulars	Frequency	Percentage
Bachelor's Degree	13	65.00
Master's Degree	5	25.00
Doctorate Degree	2	10.00
Total	20	100.00

The table shows that there are 13 respondents who are Bachelor's Degree graduates with a percentage of 65.00. 5 respondents or 25.00 percent have finished their Master's Degree. Two respondents had finished their Doctorate Degree. The data implies that most of teacher-respondents have not yet earned their Master's Degree but have already earned post graduate units.

Table 5

Distribution of Respondents by Number of Years in Teaching

Particulars	Frequency	Percentage
1 to 5	6	30.00
6 to 10	8	40.00
11 to 15	4	20.00
15 and above	2	10.00
Total	20	100.00

The data shows that there are 6 or 30.00 percent of the respondents have 1 to 5 years in teaching experience. Majority or 8 respondents or 40.00 percent of the respondents have 6 to 10 years of teaching experience. There are 2 or 10.00 percent of the respondents have 11 to 15 years of teaching experience and there are 2 respondents or 10.00 percent who have more than 15 years of teaching experience.

The data shows that majority of the respondents have teaching experience of 1 to 5 years. This means that most of the respondents are new in the teaching profession.



Table 6

Distribution of Respondents by Present Position

Particulars	Frequency	Percentage
Teacher 1	7	35.00
Teacher 2	2	10.00
Teacher 3	9	45.00
Master Teacher 1	2	10.00
Total	20	100.00

The data shows that there are 7 respondents who have a present position of Teacher 1 with a percentage of 35.00 percent. There are 9 or 45.00 percent of the respondents who are Teacher 3 and there are 2 or 10.00 percent have a position of Teacher 2. There are 2 respondents or 10.00 percent who are Master Teacher 1. The data shows that most of the respondents were not yet promoted from the teacher 1 position.

Table 7

Distribution of Respondents by Performance Rating

Particulars	Frequency	Percentage
Outstanding	11	55.00
Very Satisfactory	6	30.00
Satisfactory	3	15.00
Total	20	100.00

The data shows that there are 11 respondents who have achieved a performance rating of "Outstanding" with a percentage of 55.00. 6 respondents claimed that they have a performance rating of "Very Satisfactory" or 30.00 percent. 3 teacher respondent claimed that the had a Satisfactory performance rating.

Table 8

Distribution of Respondents by Seminars and Trainings Attended

Particulars	Frequency	Rank
School	20	2
District	20	2
Provincial	20	2
Regional	15	4
National	6	5
International	2	6

* Frequency of Mention

The data shows the number of seminars and trainings that the respondents have attended. 20 respondents have attended School-based, District and Provincial seminars and trainings. 15 respondents have attended regional trainings. 6 respondents have attended national trainings and 2 respondents have attended international trainings. The data reveals that the respondents are willing to invest in seminars and trainings for their own growth. Teachers who have attended international seminars also indicates a deeper passion and dedication in teaching.

Information Proper

Table 9

Respondent's Perception on the Extent of Realization of the General Objectives of Mathematics

Particulars	Mean	QD	Rank
1. Acquire understanding of numbers and numeration.	4.00	R	1
2. Develop ability to perform the four basic operations	3.30	MR	6
3. Develop skills in measurement, approximation and estimation	3.60	R	5
4. Develop spatial concepts and ability to use them	3.25	MR	7
5. Acquire the techniques of collecting, representing and interpreting data	3.80	R	3
6. Develop positive attitudes towards Mathematic and make good use of leisure time	3.85	R	2
7. Develop techniques of investigation and problem solving strategies	3.75	R	4
Average Weighted Mean	3.65	Realized	

On respondent's perception on the extent of realization of the general objectives of mathematics, first in rank is "Acquire understanding of numbers and numeration" with weighted mean of 4.00 and a qualitative description of "Realized." Second in rank is "Develop positive attitudes towards Mathematic and make good use of leisure time" with a weighted mean of 3.85 and a qualitative description of "Realized". Third in rank is "Acquire the techniques of collecting, representing and interpreting data"



with a weighted mean of 3.80 and a qualitative description of “Realized”.

Least is “Develop spatial concepts and ability to use them” with a weighted mean of 3.25 described as “Moderately Realized”. “Develop ability to perform the four basic operations” is second least with a weighted mean of 3.30 described as “Moderately Realized”. Third least is “Develop skills in measurement, approximation and estimation” with a weighted mean of 3.60 described as “Realized”.

The average weighted mean is 3.65 labeled as “Realized

Table 10

Respondent's Perception on the Extent of Effectiveness of the Instructional Materials used by Teachers in Teaching Mathematics

Particulars	Mean	QD	Rank
1. Books / Learners Materials	4.10	E	2.5
2. Workbooks	4.00	E	4
3. Guides	3.70	E	8
4. Magazines	3.20	ME	9
5. Handouts	3.10	ME	10
6. Scales	3.75	E	6
7. Figures in Math	4.15	E	1
8. Meters/Rulers	4.10	E	2.5
9. Compass	3.80	E	5
10. Graphs/Flannel Boards	3.75	E	6
Average Weighted Mean	3.77	Effective	

On respondent's perception on the extent of effectiveness of the instructional materials used by teachers in teaching mathematics, first in rank is “Figures in Math” with weighted mean of 4.15 described as “Effective”. Next in rank are both “Meters/Rulers” and “Books/Learners Materials” with a weighted mean of 4.10 described as “Effective”. “

Least on the table is “Handouts” with weighted mean of 3.10 described as “Moderately Effective.” Second least is “Magazines” with weighted mean of 3.20 described as “Moderately Effective.” “Guides” is third least with weighted mean of 3.70 described as “Effective.”

The average weighted mean is 3.77 with a qualitative description of “Effective”.

Table 11

Respondent's Perception on the Extent of Effectiveness Mathematics Teaching

Methods/Techniques/Strategies

Software	Mean	QD	Rank
1. Inductive Method	3.80	E	5
2. Deductive Method	3.75	E	6
3. Experimentation	3.65	E	8
4. Project Method	4.10	E	3
5. Discovery Method	4.30	VE	2
6. Problem Solving	3.40	ME	9
7. Team Teaching	3.35	ME	10
8. Collaborative Learning	4.00	E	4
9. Concept Learning Approach	3.70	E	7
10. Demonstration	4.40	VE	1
Average Weighted Mean	3.85	Effective	

On respondent's perception on the extent of effectiveness mathematics teaching methods/techniques/strategies, first in rank is “Demonstration” with weighted mean of 4.40 described as “Very Effective”. Second rank is “Discovery Method” with a weighted mean of 4.30 described as “Effective”. “Project Method” is the third rank with a weighted mean of 4.10 described as “Effective”.

Least on the table is “Team Teaching” with weighted mean of 3.35 described as “Moderately Effective.” Second least is “Problem Solving” with weighted mean of 3.40 described as “Moderately Effective.” “Experimentation” is third least with weighted mean of 3.65 described as “Effective.”

The average weighted mean is 3.85 with a qualitative description of “Effective”.

Table 12

Respondent's Perception on the Extent of Effectiveness of the Evaluative

Techniques Used in Mathematics

Particulars	Mean	QD	Rank
1. Recitation/oral tests	4.00	E	5
2. Written tests	4.25	VE	1
3. Check up assignment	4.10	E	3
4. Project outputs	4.15	E	2
5. Exercises/board work	4.05	E	4
Average Weighted Mean	4.11	Effective	

On respondent's perception on the extent of effectiveness of the evaluative techniques used in mathematics, first in rank is “Written tests” with weighted mean of 4.25 described as “Very Effective”. Next in the rank is “Project outputs” with a weighted mean of 4.15 described as “Effective”.



Least on the table is “Recitation/oral tests” with weighted mean of 4.00 described as “Effective”. Second least is “Exercises/board work” with weighted mean of 4.05 described as “Effective.” The average weighted mean is 4.11 with a qualitative description of “Effective”.

Table 13

Respondent's Perception on the Extent of Administrative Support Received in the Carryover of the Mathematics Program

Particulars	Mean	QD	Rank
1. Additional funding for activities	3.10	Sm	5
2. Procurement of instructional materials	3.60	O	4
3. Recommendation for seminar attendance	3.80	O	2
4. Giving of recognition, citation, incentives	3.90	O	1
5. Supervisory orientation	3.70	O	3
Average Weighted Mean	3.62	Often	

On respondent's perception on the extent of administrative support received in the carryover of the mathematics program, first in rank is “Giving of recognition, citation, incentives” with weighted mean of 3.90 described as “Often”. Second rank is “Recommendation for seminar attendance” with a weighted mean of 3.80 described as “Often”.

Least on the table is “Additional funding for activities” with weighted mean of 3.10 described as “Seldom”. Second least is “Procurement of instructional materials” with weighted mean of 3.60 described as “Often.”

The average weighted mean is 3.62 with a qualitative description of “Often”.

Table 14

Respondent's Perception on the Extent of Supervisory Support Received in the Carryover of the Mathematics Program

Particulars	Mean	QD	Rank
1. My immediate supervisor is impartial	3.35	Sm	8
2. My immediate supervisor gives me feedback that helps me improve my performance	4.00	O	1
3. My immediate supervisor follows through on commitments	3.70	O	3
4. I receive coaching and training from my immediate supervisor.	3.30	Sm	9
5. My immediate supervisor is available.	3.60	O	4.5
6. I receive credit from my immediate supervisor for a job well done.	3.85	O	2
7. I feel my job performance is evaluated fairly.	3.40	Sm	7
8. My immediate supervisor tries to understand my point of views when he/she discusses problems or projects with me.	3.60	O	4.5
9. My immediate supervisor creates a vision and strategy for my area.	3.50	O	6
Average Weighted Mean	3.59	Often	

On respondent's perception on the extent of supervisory support received in the carryover of the mathematics program, first in rank is “My immediate supervisor gives me feedback that helps me improve my performance” with weighted mean of 4.00 described as “Often”. Second rank is “I receive credit from my immediate supervisor for a job well done” with a weighted mean of 3.85 described as “Often”. Third rank is “My immediate supervisor follows through on commitments” with a weighted mean of 3.70 described as “Often”.

least in rank are “I receive coaching and training from my immediate supervisor” with weighted mean of 3.30 described as “Seldom.” Second least is “My immediate supervisor is impartial” with weighted mean of 3.35 described as “Seldom.” “I feel my job performance is evaluated fairly” is third least with weighted mean of 3.40 described as “Seldom.”

The average weighted mean is 3.59 with a qualitative description of “Often”.



Table 15

Respondent's Perception on the Extent of Seriousness of the Problems
Encountered in Teaching Mathematics

Particulars	Mean	QD	Rank
1. Lack of knowledge of the fundamental operations	3.40	MS	3
2. Lack of interest	2.80	MS	5
3. Weak understanding of the problem	3.85	S	1
4. Weak sense of reasoning /inferences	3.25	MS	4
5. Absenteeism	2.70	MS	6
6. Financial Constraints	3.60	S	2
7. Health problems	2.30	SS	7.5
8. Carelessness in the process of answering	2.25	SS	9
9. Inadequate instructional materials	2.30	SS	7.5
Average Weighted Mean	2.94	Moderately Serious	

On respondent's perception on the extent of seriousness of the problems encountered in teaching mathematics, first in rank is "Weak understanding of the problem" with weighted mean of 3.85 described as "Serious". Second rank is "Financial Constraints" with a weighted mean of 3.60 described as "Serious". Third rank is "Lack of knowledge of the fundamental operations" with a weighted mean of 3.40 described as "Moderately Serious".

Least in rank is "Carelessness in the process of answering" with weighted mean of 2.30 described as "Slightly Serious." "Inadequate instructional materials" and "Health problems" are second least with weighted mean of 2.30 described as "Slightly Serious."

The average weighted mean is 2.94 with a qualitative description of "Moderately Serious".

Table 16

Respondent's Perception on the Activities Undertaken by the Teachers to get
across the Problems Encountered

Particulars	Mean	QD	Rank
1. Peer Tutoring	2.28	SI	8
2. Tutorial	2.90	Sm	2
3. Home Visitation	2.93	Sm	1
4. Remedial Classes	2.76	Sm	4.5
5. Purchase Instructional Materials	2.21	SI	9
6. Financial Support	2.55	SI	6
7. Conduct Math Encampment	1.38	N	10
8. MTAP classes	2.55	SI	6
9. Math games	2.83	Sm	3
10. Worksheets	2.76	Sm	4.5
Average Weighted Mean	2.51	Seldom	

On respondent's perception on the activities undertaken by the teachers to get across the problems encountered, first in rank is "Home Visitation" with weighted mean of 2.93 described as "Sometimes". Second rank is "Tutorial" with a weighted mean of 2.90 described as "Sometimes". Third rank is "Math games" with a weighted mean of 2.83 described as "Sometimes".

Least in rank is "Conduct Math Encampment" with weighted mean of 1.38 described as "Never." Second least is "Purchase Instructional Materials" with weighted mean of 2.21 described as "Seldom." "Peer Tutoring" is third least with weighted mean of 2.28 described as "Seldom."

The average weighted mean is 2.51 with a qualitative description of "Seldom".

CONCLUSION

The result of the study shows that the respondents believe that the objectives of Mathematics in general is Realized.

The result of the study revealed that the respondents perceived the instructional materials used by the teachers as Effective. This means that pupils study well along with the instructional materials.

The respondents perceived that the methods/techniques/strategies used by the teachers are effective. This implies that teachers are using methods/ techniques/ strategies that catches the attention of the pupils.

The evaluative tools used are effective. This means that teachers are measuring the learning of pupils effectively specially that they are evaluating using with written and performance tasks.

There is an often administrative and supervisory support given to the teachers. This gives the teachers motivation to perform well and to be able to get good criticisms that will improve their teaching process.

There is a moderately serious description on the problems encountered in teaching mathematics. This maybe the reason why the objectives of mathematics was perceived as realized and not fully realized. This further implies that teachers have not encountered a very serious problem in teaching the subject.

There are activities undertaken to overcome the problems but it was described as seldom. This means that they sometimes fail to the activities to solve the problems.

RECOMMENDATION

From the foregoing findings and conclusions drawn, the following recommendations are offered:

1. The school administrators should encouraged teachers to attend mathematics-related seminars and trainings in order for them to grow more and share more knowledge to the pupils.



2. Teachers should try to innovate and improve more their instructional materials. Innovative instructional materials will likely to help in attaining the lessons' objectives. The Administrators also should do their part and exhaust all means to provide the needed instructional materials.
3. Teachers should adapt new methods/techniques/strategies so as to get the attention of the pupils.
4. Administrators should give more administrative and supervisory support to the teachers in the implementation of the mathematics program. This would increase their enthusiasm in doing their job right.
5. Teachers should always do the activities that would the problems encountered. They should give time to these activities in order to lessen the effect of the problems.
6. This study entails further study. Thus, future researchers should also conduct similar to this study to improve this study and as well to give attention on the problems encountered and their solution.

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