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Project Go Boards: A Teaching-Learning Intervention to Improve Academic Performance in Mathematics Among Selected Grade 6 - Dalton Pupils

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ABSTRACT

Project GO Boards are a carefully selected collection of activities that are differentiated and designed to support pupil engagement and learning motivation. This aligns with DepEd Memo No. O23 s. 2023, Adoption of the National Learning Recovery Program (NLRP) that shall help bridge the learning gaps of learners highlighting literacy and numeracy. This study was conducted at Itaas Elementary School involving fifteen pupils in the Grade Six-Dalton every Wednesday and Friday from November 2023 to February 2024. It sought to determine whether using the GO Boards effectively improved the respondents' academic performance. The data-gathering tools included the 20-item pretest, post-test, and their reflection log-in sheet. In this study, GO Boards were effective in increasing the level of the student's academic performance in Mathematics. This was based on the results of the post-test where the computed mean value was higher than the pretest Mean and MPS. Thus, the null hypothesis of the study was rejected, and the alternate hypothesis was accepted. There was a significant difference in the pretest and post-test scores of the selected students of Grade Six – Dalton before and after using the Project GO Boards. Based on the findings, it is concluded that the use of GO Boards improved the academic performance of the selected participants. They had improved their level of performance in mathematics, as manifested by the increase in post-test scores and their grades. The study's results showed that the intervention was effective in improving the academic performance in Mathematics among the selected Grade Dalton pupils.

INTRODUCTION

To be numerate means you have the confidence to use the fundamental operations and problem-solving skills in your daily life. According to the PISA 2018 International report, Filipino students' average score in mathematical literacy was 353 points. The result was significantly lower than the Organization of Economic Cooperation and Development's average score of 489 points. It was indicating below level 1 proficiency. Moreover, the Department of Education released a statement of the PISA 2022 results that Filipino students remain among the world's weakest in math. Just less than a quarter of Filipino students have reached the minimum level of proficiency in all subjects like Math, Reading, and Science. With the PISA results thereby reflecting also the learners' performance in the National Achievement Test, DepEd recognizes the urgency of addressing issues and gaps in attaining the quality of basic education in the Philippines by launching the " Sulong Edukalidad". It pointed out that the biggest challenge facing basic education in our country today is quality, particularly in the learning outcomes of students. Additionally, DepEd Memorandum No. 054 s. 2023 launched the pilot implementation of the Matatag Curriculum, with the agenda of improving the quality of basic education in the country. To help attain the commitments articulated in the Matatag Agenda, DepEd has adopted DepEd Memo No. O23 s. 2023 Adoption of the National Learning Recovery Program (NLRP) with the subprograms which are National Learning Camp(NLC, National Mathematics Program(NMP), and National Reading Program(NRP) that shall help bridge the learning gaps of learners highlighting literacy and numeracy.

In line with the numeracy program, The biggest challenge teachers face is coming up with ways to address the loss of learning due to discontinuity and learning gaps resulting from the suspension of classes, the pandemic, and congested competencies. Many Mathematics teachers face the dilemma of having several learners who failed their subjects. Asked why they failed; students are quick to answer that they find Mathematics hard to comprehend.

Upon thorough research of the phenomenon, the researcher found out that some students like to have different activities of their choice. Students want to have the freedom to make their own choices occasionally. And that is just as true for learners of all ages. It is just one of the reasons why GO Boards are an excellent tool for any subject. GO Boards are a strategy game that originated in China 2,500 years ago. The board typically consists of a grid with horizontal and vertical lines creating intersections where players can place their stones. Today, GO Boards have more possible board configurations for a modern twist. GO Boards allow each pupil to complete the required skills and learn to demonstrate that learning. GO Boards not only offer the most strategic possibilities to compete with one another but a fun-filled activity as well.

Several studies may prove some usefulness of innovative teachings in Mathematics. One study by Thiyagu, K (2013) discussed the innovations and innovative practices in teaching mathematics, under teaching methods, strategies, and pedagogic resources. This paper highlights two important concepts: bulletin board and smart board. The process of innovation is generally described as consisting of three essential steps, starting with the conception of an idea, which is then proposed and finally adopted. Though many ideas have been conceived to bring about change in the teaching of mathematics, it is yet to be proposed and adopted. So, the innovations discussed may not be new in terms of the idea but are new in terms of practice.

Most importantly, GO Boards allow pupils to make their own choices, which increases intrinsic motivation and meaningful learning. Students are more likely to internalize learning if an activity is interesting to them or if they can make a connection to their own lives.

Furthermore, GO Boards allow pupils to reflect on their choice, how working on that choice went, and what their next steps are." These special boards are carefully selected collections of math activities that are differentiated and designed to support pupil engagement and learning motivation.

Finally, GO Boards are effective in the physical classroom as well as in distance learning as asynchronous assignments in case of suspension of classes and other emergencies that may arise in the future. Thus, the researcher used the project GO Boards as an intervention to improve academic performance in Mathematics.

After a thorough assessment of the data, the researcher crafted these questions:

1 How did the teachers assess the GO Boards as a teaching-learning intervention in mathematics:
   1.1 relevance
   1.2 clarity
   1.3 usefulness
   1.4 acceptability
2 What is the level of performance of the respondents during the pretest?
3 What is the level of performance of the respondents during the post-test?
4 What significant difference exists between the pretest and post-test results?
5 This study aims to determine the effectiveness of the GO Boards as teaching-learning interventions to improve the academic performance in Mathematics among selected pupils in Grade Six – Dalton. The study seeks to answer the following questions: What are the insights of the teacher-researcher in the implementation of the GO Boards in Mathematics class? Does using the GO Boards improve the academic performance in Mathematics of the selected respondents?

The following hypotheses were drawn in the study for acceptance or rejection.

- Ho: There is no significant difference in pretest and post-test scores among selected grade Six- Dalton pupils using GO Boards as a teaching-learning intervention to improve academic performance in mathematics.
- Ha: There is a significant difference in pretest and post-test scores among selected grade Six- Dalton pupils using GO Boards as a teaching-learning intervention to improve academic performance in mathematics.

METHODOLOGY

A. Research Design

The design of this study is descriptive quantitative since the researcher analyzed data from the results of the pretest and post-test to determine the effectiveness of using GO Boards as a teaching-learning intervention to improve the academic performance in mathematics among selected grade Six-Dalton pupils.

According to Scrbbr, descriptive research aims to describe a population, situation, or phenomenon accurately and systematically. It can answer what, where, when, and how questions, but not why questions. A descriptive method can use one or more variables.

The action plan and the budget matrix were adopted in using the GO Boards as a program and as supplement materials to improve the academic performance in mathematics among grade Six-Dalton pupils.

In the Pre-Implementation, The researcher asked permission from the school head to conduct classroom research in her mathematics class. Then a pretest was conducted that served as the baseline for planning and designing appropriate

interventions for this study. The questions are aligned in the first and second quarters of the definitive budget of work(DBOW). The 20-item pretest was checked and validated by the Master Teacher-in-Charge. After the pretest instrument was finalized, printing out the necessary materials as well as instructions or guidelines for the participants were set. The researcher used paper and pen during the respondents' assessment. Sufficient time was allowed to ensure that they understood the questions and could provide accurate responses. Once the pretest is completed, the responses are collected, recorded, and tabulated. This analysis served as the basis for the intervention strategy and identified areas for improvement.

Learners and parents were properly informed about the research to be conducted by giving them a letter of invitation for a meeting. Likewise, an Orientation was done and a consent form was distributed and signed by the parents. This was done to ensure that pupils are properly consented without violating the laws of data privacy. Thus, the researcher started to search for and design differentiated activities as GO Boards which are aligned with the learning competencies from MELC. Gathering the necessary data for the GO Boards and designing the layout should be appealing, easy to understand, and aligned with the purpose of the study. The Canva application was used by the researcher in designing and creating concepts. This could involve graphic design software or specialized tools for creating data visualization. The created GO Boards were in logical order to facilitate easy comprehension and navigation. It considered grouping related information to ensure a smooth flow of content from one board to the next. The Master Teacher-in-Charge and mathematics teachers validated the GO Boards as to relevance, clarity, usefulness, and acceptability before the implementation.

During the Implementation Stage, the utilization of the GO Boards as a teaching-learning intervention to improve the academic performance in mathematics of the respondents was started with an orientation. The conduct of the GO Boards was scheduled 1 hour after regular class every Wednesday and Friday of the week. Respondents are allowed to choose from among the different sets of GO Boards for the day. GO, Boards, are grouped according to the learning competency and put in a plastic envelope correctly labeled if it's intended for quarter 1 or quarter 2. Each competency has a variety of GO Boards to choose from. A short review of the particular lessons in 1 learning competency before using the GO Boards. After a short review, the researcher explained the steps on how to play GO Boards and the mechanics of the game. To monitor the participation of the respondents, they need to log in for attendance and answer the reflection sheet. Throughout the study, the learners were closely monitored and guided in using GO Boards to see their progress in learning mathematics.

For the Post post-implementation, the researcher closely followed the following timeline. After the second quarter, the researcher administered the post-test parallel to the pretest given. Since the researcher adopted and utilized the pretest given by SDO Muntinlupa, the teacher researcher made a parallel test for the 20-item post-test. Test results were recorded and computed to get the Mean and percentile scores. The difference between Pretest Post post-test scores was determined to see the academic performance in solving mathematical problems. Respondents and their parents were interviewed about the project GO Boards. Positive feedback from respondents and parents was evident that problem-solving skills in mathematics is a fun-filled and enjoyable activity. The results were communicated by the researcher to the parents for feedback.

B. Participants and/ or other Sources of Data and Information

Fifteen pupils were the participants in the study. They are the pupils who got the lowest scores in the pretest in Mathematics administered by the teacher/ researcher. They are currently enrolled as Grade Six – Dalton under the Mathematics class of the researcher this school year 2023 – 2024. Parents' consent was secured from them while the Data Privacy Act was strictly followed.

More so, there were 15 mathematics teachers and Master Teachers who validated the utilization of the GO Boards. The research took place at Itaas Elementary School, a public school in Poblacion, Muntinlupa City.

C. Data Gathering Methods

Data was gathered from the pretest and post-test results in Mathematics. The data-gathering tools used in this research included interviews with parents and learners. Questionnaires on the use of GO Boards as to relevance, clarity, usefulness, and acceptability were distributed and answered by mathematics teachers and Master Teachers. Their responses were tabulated and interpreted, too. Learners' Mathematics reflection sheets were also used. Each respondent has to complete the reflection sheets weekly. These important tools supplemented the results of the study.

The data-gathering tools were a 20-item teacher-made test and a reflection sheet. The test was checked and reviewed by the master teacher-in-charge and was subjected to Grammarly Checker.

D. Data Analysis

Descriptive analysis was utilized using simple statistical tools like the mean and MPS. Questionnaires were distributed and answered to validate the utilization of GO Boards. Furthermore, results were analyzed and reported as tables. For correlated samples, a correlated T-test was used to reject or accept the hypothesis. The formula is

$$t=\Sigma d\sqrt{n(\Sigma d2)-(\Sigma d)2n-1}$$

What is the t-test for correlated samples? The t-test for correlated samples is a parametric test applied to one group of samples. it can be used in the evaluation of a certain program or treatment. The interpretation of the collected data was based on the results of the assessments given to the selected respondents. The results were tabulated per table and were likewise interpreted. The test for correlated samples is applied when the mean before and the mean after are being compared. The pretest (mean

before) is measured, the treatment of the intervention is applied and then the posttest (mean after) is likewise measured. Then the two means (the pretest vs. the posttest) are compared.

RESULTS AND DISCUSSION

Upon validation of the effectiveness of GO Boards as teaching-learning interventions to improve academic performance in mathematics, the researcher/teacher tabulated the indicators and recorded their weighted mean, rank, and description.

Table 1. Teachers' Assessment of GO Boards as to Relevance.

Criteria	WM	Description	Rank
1. The GO Boards are relevant to the existing MELC of the DepEd.	4.6	Relevant	4
2. The GO Boards answer the expected outcome of the learners.	4.8	Most Relevant	3
3. The GO Boards are good substitutes for the activities in teaching.	4.2	Relevant	5
4. The GO Boards are carefully selected, prepared, and developed to attain its learning objectives.	4.9	Most Relevant	1
5. The GO Boards are congruent with the learning objectives.	4.86	Most Relevant	2

Criteria	Range	Interpretation
5	4.20-5.00	Most Relevant (MR)
4	3.40-4.19	Relevant(R)
3	2.60-3.39	Moderately Relevant(Mo R
2	1.80-2.59	Least Relevant(LR)
1	1.00-1.79	Not Relevant (NR)

Table 1 shows that indicator number 4 ranks 1 with a weighted mean of 4.9 and is described as most relevant. The GO Boards are carefully selected, prepared, and developed to attain the learning objectives. The design is visually appealing, easy to understand, and aligned with the intended purpose—this involved graphic design software like the Canva app for creating data visualization.

Table 2.

Criteria	WM	Description	Rank
1. The objective/s of each GO Board are clearly defined.	4.6	Very Clear	5
2. The GO Boards are within the definitive budget of the budget of work.	4.86	Very Clear	3
3. The problem-solving contents of the GO Boards are presented in simple language.	5	Very Clear	1
4. The problems used in GO Boards are appropriate for the grade level.	4.73	Very Clear	4
5. Illustrations are created for the level of understanding.	4.9	Very Clear	2

Criteria	Range	Interpretation
5	4.20-5.00	Very Clear(VC)
4	3.40-4.19	Clear(C)
3	2.60-3.39	Moderately Clear(MC)
2	1.80-2.59	Least (LC)
1	1.00-1.79	Not Clear (NC)

Indicator 3 ranked 1 with a weighted mean of 5 and is described as Very clear. It highlights the clarity of the problem-solving content on the GO Boards. This likely enhances the user a level of understanding and accessibility, making it easier for respondents to engage in problem-solving. The use of clear and concise language that is easily understandable by the respondents.

Table 3. Teachers Assessment on GO Boards as to Usefulness.

Criteria	WM	Description	Rank
1. The GO Boards are important instructional material in Math VI.	4.2	Useful	4.5
The GO Boards increase the learner's interest in mathematics.	4.9	Very Useful	1
3. The GO Boards can motivate learners to study independently.	4.73	Very Useful	3
4. The GO Boards are good instructional materials and help develop critical thinking skills.	4.2	Useful	4.5
5. The GO Boards provide more fun and exciting experiences in learning mathematics.	4.8	Very Useful	2

Criteria	Range	Interpretation
5	4.20-5.00	Very Useful(VU)
4	3.40-4.19	Useful (U)
3	2.60-3.39	Moderately Useful (MU)
2	1.80-2.59	Least Useful (LU)
1	1.00-1.79	Not Useful (NU)

Table 3 shows that indicator 2 ranked 1 with a weighted mean of 4.9 and is described as very useful for the learners. GO Boards increased the learners' interest in mathematics. Go Boards are a versatile tool that can be customized to suit various needs. The usefulness of GO Boards track progress and drive continuous improvement.

Table 4 shows that indicator 5 ranks 1 with a weighted mean of 4.9. The GO Boards provide a range of learners' interests and preferences. They offer opportunities for interactive learning experiences, allowing learners to actively engage with content, manipulate data, and explore concepts in a hands-on manner. They enable personalized learning experiences by allowing learners to choose their paths, and explore topics of interest at their own pace.

Table 5 shows that each category was defined. Clarity ranked first because it effectively presents information clearly and understandably. The layout, formatting, and labeling of data are well organized making it easy for the respondents to comprehend quickly. Relevance ranked 2 because it is directly related to the topic. Usefulness ranked third because the GO Boards data address specific computational skills in achieving goals. Finally, acceptability is ranked fourth because it comes down to personal preference and the specific context in which the board will be used. The average weighted mean is still highly acceptable.

Table 4. Teachers Assessment on GO Boards as to Acceptability.

Criteria	WM	Description	Rank
1. The GO Boards are acceptable instructional material to improve computational skills in mathematics.	4.4	Highly Acceptable	3.5
2. The GO Boards exhibit desirable qualities.	4.73	Highly Acceptable	2
3. The GO Boards can be used by all learners and recommended for mass production.	4.4	Highly Acceptable	3.5
4. Go Boards contribute to the acquisition of concepts and understanding of mathematical problems and their application.	4.2	Acceptable	5
5.The GO Boards provide a range of learners' interests and preferences.	4.9	Highly Acceptable	1

Criteria	Range	Interpretation
5	4.20-5.00	Highly Acceptable(HA)
4	3.40-4.19	Acceptable (A)
3	2.60-3.39	Moderately Acceptable(MA)
2	1.80-2.59	Least Acceptable(LA)
1	1.00-1.79	Not Acceptable(NA)

Table 5. Summary of the Teacher's Assessment on GO Boards as to Relevance, Clarity, Usefulness, and Acceptability.

Categories	WM	Description	Rank
1. Relevance	4.67	Highly Relevant	2
2. Clarity	4.81	Very Clear	1
3. Usefulness	4.56	Very useful	3
4. Acceptability	4.52	Highly Acceptable	4

Table 6. Level of Performance of Grade Six-Dalton Before using GO Boards.

No. of Pupil Respondents	Total Score	Mean	MPS
15	51	3.4	17%

As indicated in Table 6, a mean score of 3.40 was obtained with an MPS of 13.20 %. This reveals that pupils' academic performance in mathematics was very much below mastery level. These results need to be given an intervention by the teacher researcher for mastery of basic computational skills using GO Boards.

Table 7. Level of Performance of Grade Six-Dalton After using GO Boards.

No. of Pupil Respondents	Total Score	Mean	MPS
15	210	14	70%

There was a significant increase of 53% which is a manifestation of improved academic performance in Mathematics among grade Six -Dalton pupils. Upon submission of their reflection sheet, pupils stated that they had fun using the Go Board. The lessons became much easier, and they were thankful that the researcher gave them the freedom to choose whatever activity they wished to answer.

Table 8. Comparison of the pretest and post-test scores of the respondents before and after the implementation of the project go boards after applying the correlated t-test.

Test	Number of Resondents	Mean	Computed t Value	Tabular t Value 0.05, 11df	Decision	Interpretation
PRETEST	15	3.4	19.26	8.9	Reject Ho	Significant
POST-TEST	15	14				

With 14 degrees of freedom, it can be seen from Table 8 that the computed value of 19.26 is significant beyond the 0.05 level. Thus, the null hypothesis of the pretest and post-test mean equivalence is 19.26, and the tabular t-value of 8.9 infers that the Project GO Board is effective in improving academic performance in Math based on the scores of the 15 learners. Therefore, the null hypothesis is rejected. The correlated t-test showed that there is a significant difference between the pretest and post-test scores of 0.05 level the selected participants.

According to White et al. (2019) in their study titled "Effects of Game-Based Learning on Attitude and Achievement in Elementary Mathematics," the research outcomes have significant implications for both educators and learners in the mathematics classroom. This aligns with prior literature supporting the positive impact of serious gaming on attitude and achievement. These results are expected to encourage additional investigation by researchers and practitioners.

CONCLUSION

In this study, it is therefore concluded that the use of the strategy, GO Boards was effective in increasing the level of the student's academic performance in Mathematics because each category as to clarity, usefulness, relevance and acceptability were highly recommended. The level of academic performance in Mathematics during the Pretest was below mastery level. After the utilization of Go Boards, Post test result went up to 70%. Upon comparison on the results of the post-test where the computed mean value was higher than the pretest Mean and MPS. Thus, the null hypothesis of the study was rejected, and the alternate hypothesis was accepted.

There was a significant difference in the pretest and post-test scores of 0.05 level of the selected students of Grade Six – Dalton before and after using the Project GO Boards. This infers that the Project GO Board is effective in improving academic performance in Math based on the scores of the 15 learners.

Overall, the reflection of pupils conveyed a sense of satisfaction and enrichment derived from engaging with Go boards. It highlights the positive emotional impact of the experience, the enjoyment found in playing the game, and the ongoing process of learning and improvement.

RECOMMENDATIONS

After conducting the study and analyzing the results of the data, the researcher hereby recommends the following:

1. Schools Division Office - The teacher-researcher recommends disseminating the use of GO Boards by uploading it to the Schools Division of Muntinlupa Learning Resource portal and encouraging mathematics teachers to create more GO Boards for mass production.
2. School Principal, SBM, and PIR Coordinators- The teacher-researcher suggests that the school head should approve the budget request for providing more copies of GO Boards to make them available to pupils and include them in the scheduled LAC session in all grade levels.
2. 1. Mathematics Teachers- The teacher-researcher recommends utilizing the GO Boards across different grade levels to explore various platforms that would create fun learning in mathematics.
1. Parents/Guardians of pupils - The teacher-researcher recommends supporting the utilization of GO Boards by facilitating the use of GO Boards at home to improve their academic performance in mathematics.
3. 3. Other Stakeholders in the Community- The teacher-researcher recommends supporting the use of GO Boards and bringing out the use of GO Boards in the community they are in.
1. Pupils- The teacher-researcher recommends continued use of the intervention in the succeeding quarters to improve their mathematical skills.
4. 5. Future Teacher-Researchers- The teacher-researcher recommends another similar conduct of the intervention in another research to make it one of the SMART with HEART best practices in teaching Mathematics.

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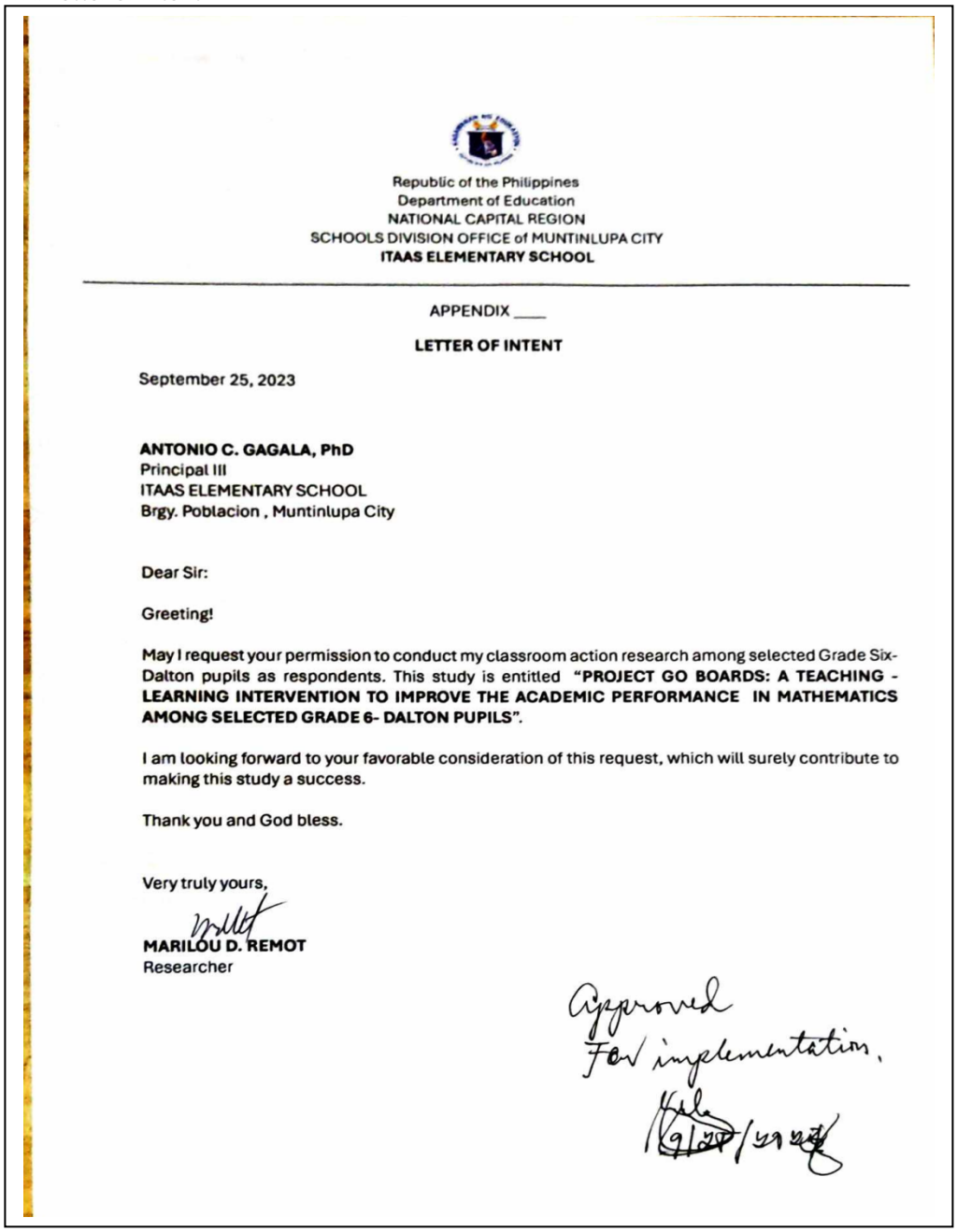
APPENDIX N:	Action Plan/Project Work Plan and Budget Matrix

APPENDIX A: Letter of Intent



Republic of the Philippines
Department of Education
NATIONAL CAPITAL REGION
SCHOOLS DIVISION OFFICE of MUNTINLUPA CITY
ITAAS ELEMENTARY SCHOOL

APPENDIX ___

LETTER OF INTENT

September 25, 2023

ANTONIO C. GAGALA, PhD
Principal III
ITAAS ELEMENTARY SCHOOL
Brgy. Poblacion , Muntinlupa City

Dear Sir:

Greeting!

May I request your permission to conduct my classroom action research among selected Grade Six-Dalton pupils as respondents. This study is entitled **"PROJECT GO BOARDS: A TEACHING - LEARNING INTERVENTION TO IMPROVE THE ACADEMIC PERFORMANCE IN MATHEMATICS AMONG SELECTED GRADE 6- DALTON PUPILS"**.

I am looking forward to your favorable consideration of this request, which will surely contribute to making this study a success.

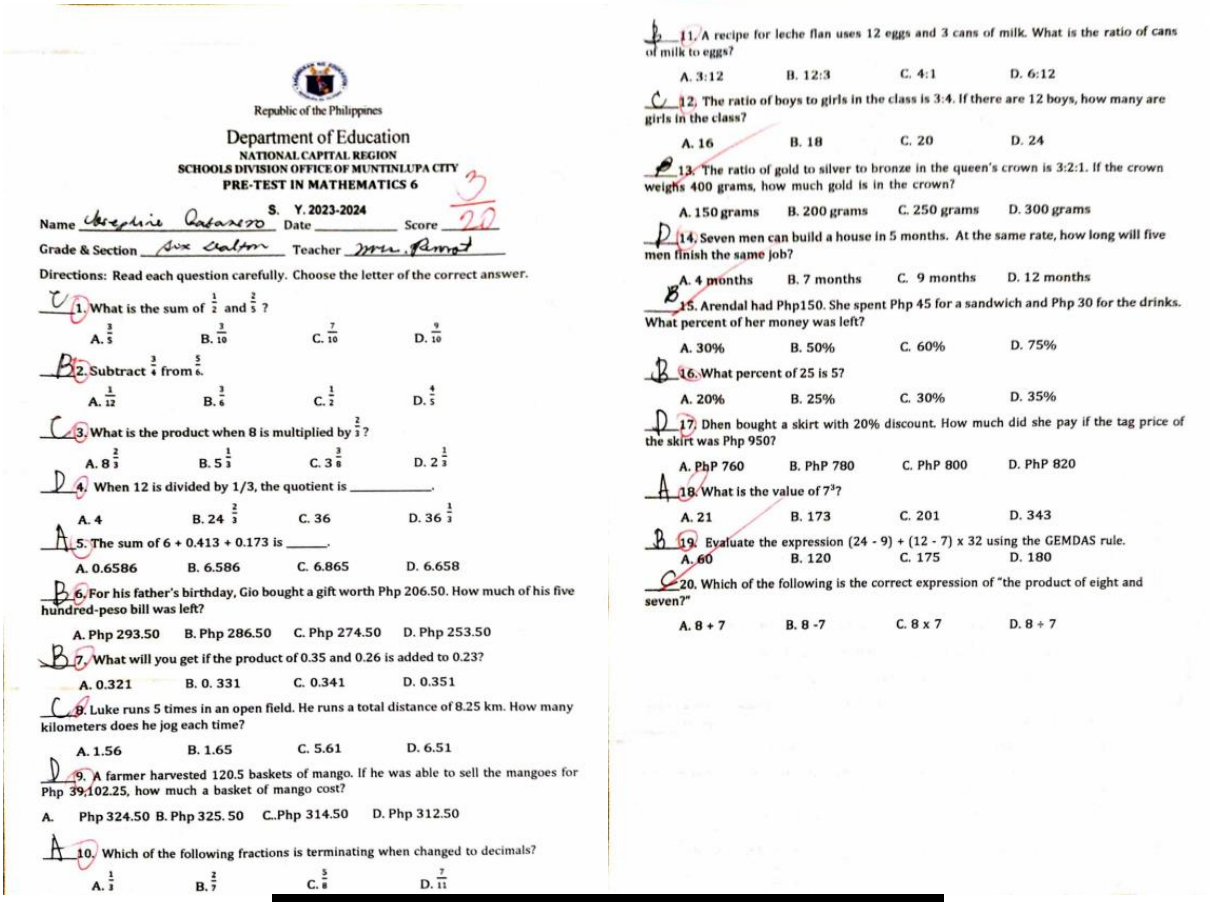
Thank you and God bless.

Very truly yours,

MARILOU D. REMOT
Researcher

Approved
For implementation.

APPENDIX B: Pretest/ Answer Key/Results



Republic of the Philippines

Department of Education

NATIONAL CAPITAL REGION

SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

PRE-TEST IN MATHEMATICS 6

S. Y. 2023-2024

Name _____ Date _____ Score _____

Grade & Section _____ Teacher _____

Directions: Read each question carefully. Choose the letter of the correct answer.

C 1. What is the sum of $\frac{1}{2}$ and $\frac{2}{5}$?

A. $\frac{3}{5}$ B. $\frac{3}{10}$ C. $\frac{7}{10}$ D. $\frac{9}{10}$

B 2. Subtract $\frac{3}{4}$ from $\frac{5}{6}$.

A. $\frac{1}{12}$ B. $\frac{3}{6}$ C. $\frac{1}{2}$ D. $\frac{4}{5}$

C 3. What is the product when 8 is multiplied by $\frac{2}{3}$?

A. $8\frac{2}{3}$ B. $5\frac{1}{3}$ C. $3\frac{3}{8}$ D. $2\frac{1}{3}$

D 4. When 12 is divided by 1/3, the quotient is _____.

A. 4 B. 24 $\frac{2}{3}$ C. 36 D. 36 $\frac{1}{3}$

A 5. The sum of 6 + 0.413 + 0.173 is _____.

A. 0.6586 B. 6.586 C. 6.865 D. 6.658

B 6. For his father's birthday, Gio bought a gift worth Php 206.50. How much of his five hundred-peso bill was left?

A. Php 293.50 B. Php 286.50 C. Php 274.50 D. Php 253.50

B 7. What will you get if the product of 0.35 and 0.26 is added to 0.23?

A. 0.321 B. 0. 331 C. 0.341 D. 0.351

C 8. Luke runs 5 times in an open field. He runs a total distance of 8.25 km. How many kilometers does he jog each time?

A. 1.56 B. 1.65 C. 5.61 D. 6.51

D 9. A farmer harvested 120.5 baskets of mango. If he was able to sell the mangoes for Php 39,102.25, how much a basket of mango cost?

A. Php 324.50 B. Php 325. 50 C..Php 314.50 D. Php 312.50

A 10. Which of the following fractions is terminating when changed to decimals?

A. $\frac{1}{3}$ B. $\frac{2}{7}$ C. $\frac{5}{8}$ D. $\frac{7}{11}$

B 11. A recipe for leche flan uses 12 eggs and 3 cans of milk. What is the ratio of cans of milk to eggs?

A. 3:12 B. 12:3 C. 4:1 D. 6:12

C 12. The ratio of boys to girls in the class is 3:4. If there are 12 boys, how many are girls in the class?

A. 16 B. 18 C. 20 D. 24

B 13. The ratio of gold to silver to bronze in the queen's crown is 3:2:1. If the crown weighs 400 grams, how much gold is in the crown?

A. 150 grams B. 200 grams C. 250 grams D. 300 grams

D 14. Seven men can build a house in 5 months. At the same rate, how long will five men finish the same job?

A. 4 months B. 7 months C. 9 months D. 12 months

B 15. Arendal had Php150. She spent Php 45 for a sandwich and Php 30 for the drinks. What percent of her money was left?

A. 30% B. 50% C. 60% D. 75%

B 16. What percent of 25 is 5?

A. 20% B. 25% C. 30% D. 35%

D 17. Dhen bought a skirt with 20% discount. How much did she pay if the tag price of the skirt was Php 950?

A. PhP 760 B. PhP 780 C. PhP 800 D. PhP 820

A 18. What is the value of 7^3?

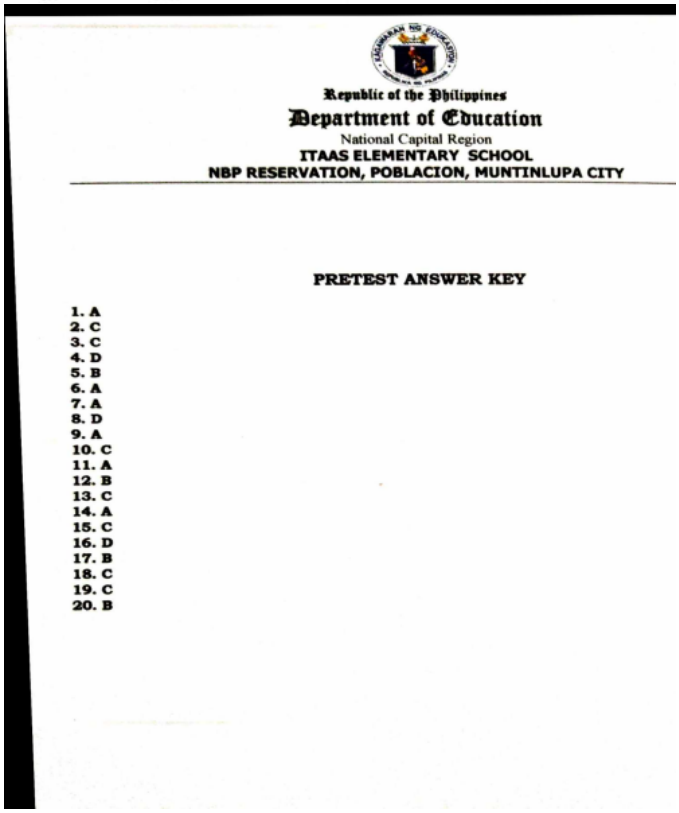
A. 21 B. 173 C. 201 D. 343

B 19. Evaluate the expression (24 - 9) + (12 - 7) x 32 using the GEMDAS rule.

A. 60 B. 120 C. 175 D. 180

C 20. Which of the following is the correct expression of "the product of eight and seven?"

A. 8 + 7 B. 8 -7 C. 8 x 7 D. 8 ÷ 7



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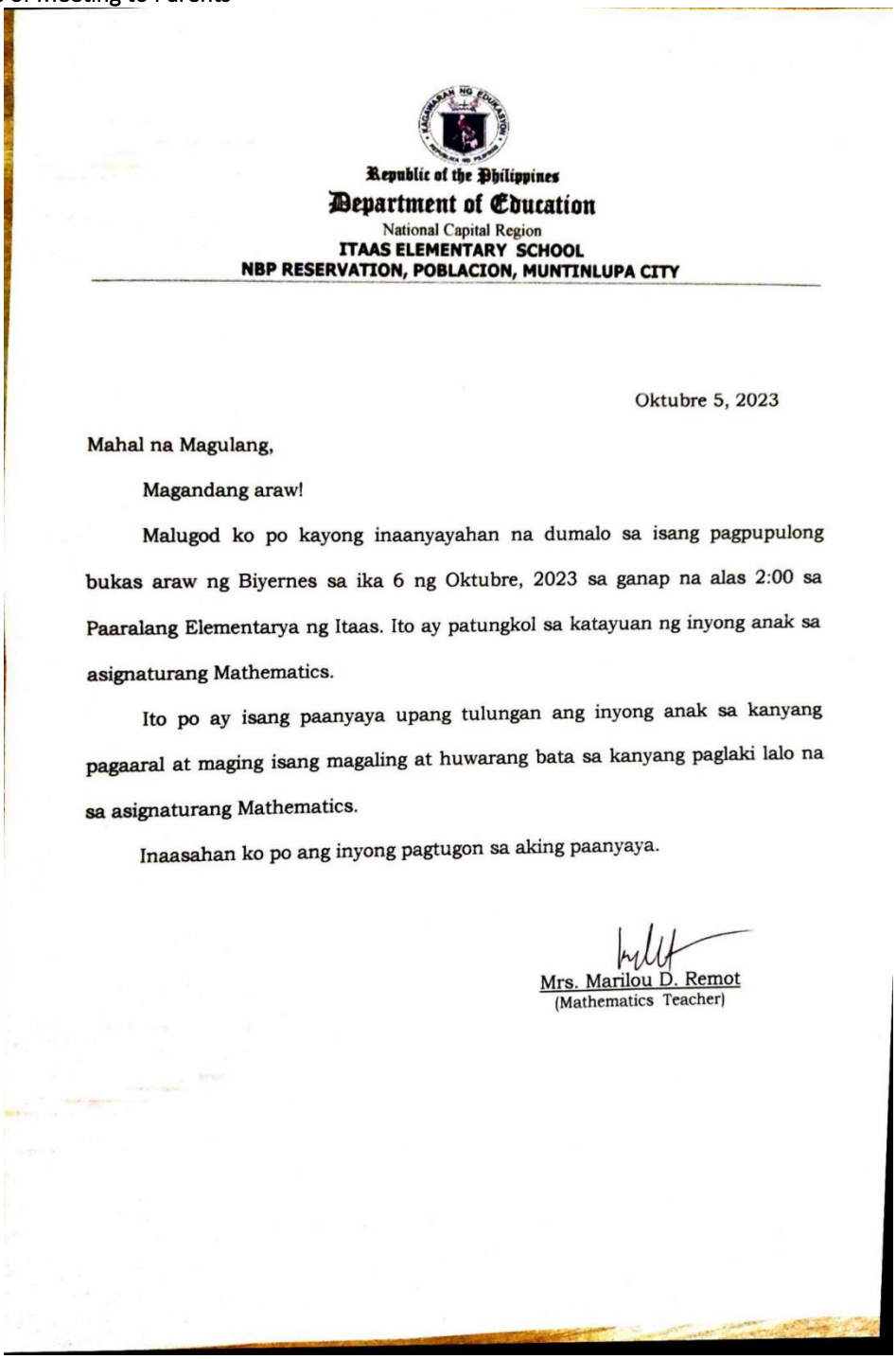
PRETEST ANSWER KEY

1. A
2. C
3. C
4. D
5. B
6. A
7. A
8. D
9. A
10. C
11. A
12. B
13. C
14. A
15. C
16. D
17. B
18. C
19. C
20. B

APPENDIX C: Notice of Meeting to Parents



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Oktubre 5, 2023

Mahal na Magulang,

Magandang araw!

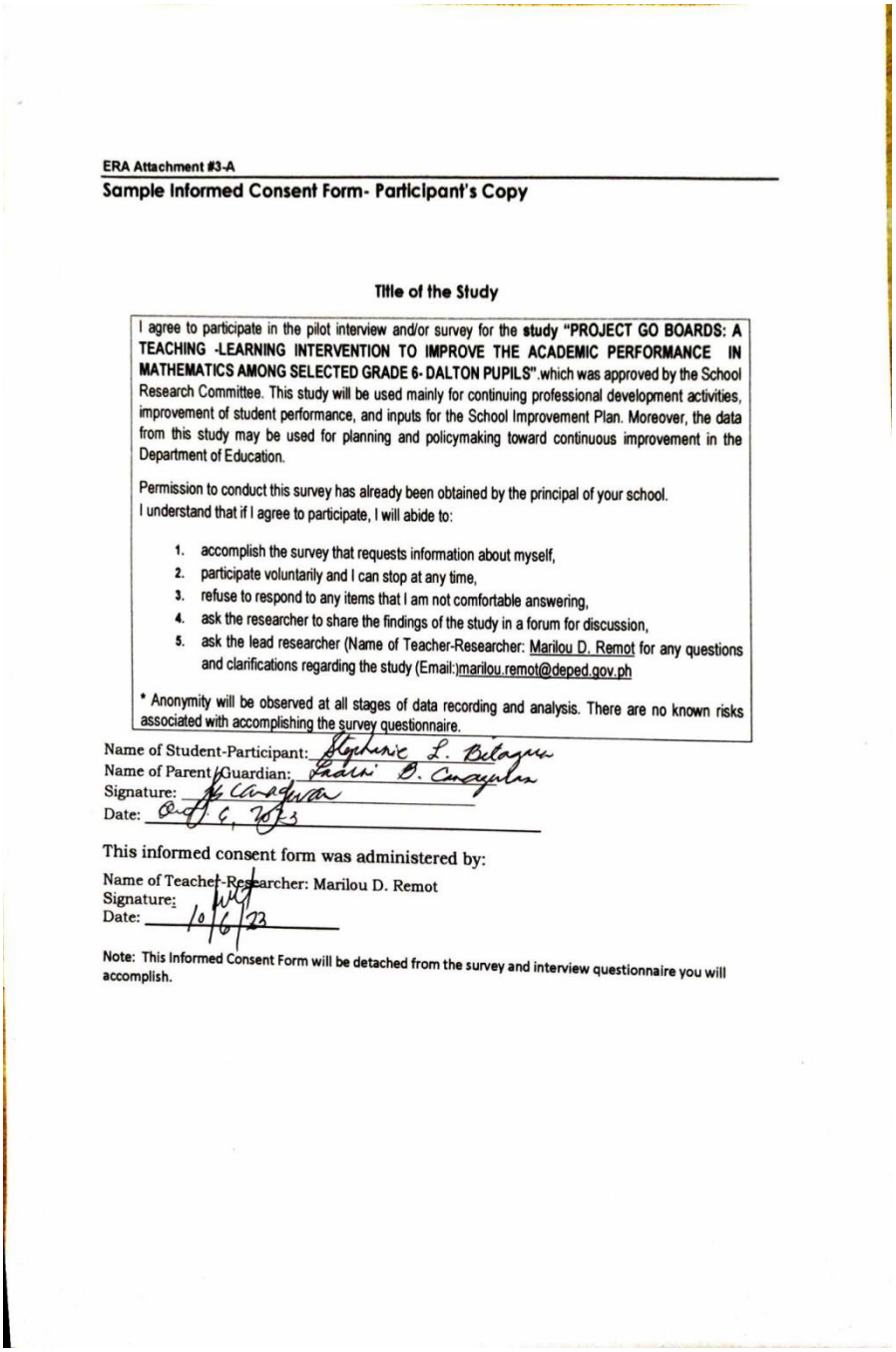
Malugod ko po kayong inaanyayahan na dumalo sa isang pagpupulong bukas araw ng Biyernes sa ika 6 ng Oktubre, 2023 sa ganap na alas 2:00 sa Paaralang Elementarya ng Itaas. Ito ay patungkol sa katayuan ng inyong anak sa asignaturang Mathematics.

Ito po ay isang paanyaya upang tulungan ang inyong anak sa kanyang pagaaral at maging isang magaling at huwarang bata sa kanyang paglaki lalo na sa asignaturang Mathematics.

Inaasahan ko po ang inyong pagtugon sa aking paanyaya.

Mrs. Marilou D. Remot
(Mathematics Teacher)

APPENDIX D: Parent's Consent Form



ERA Attachment #3-A

Sample Informed Consent Form- Participant's Copy

Title of the Study

I agree to participate in the pilot interview and/or survey for the **study "PROJECT GO BOARDS: A TEACHING -LEARNING INTERVENTION TO IMPROVE THE ACADEMIC PERFORMANCE IN MATHEMATICS AMONG SELECTED GRADE 6- DALTON PUPILS"**.which was approved by the School Research Committee. This study will be used mainly for continuing professional development activities, improvement of student performance, and inputs for the School Improvement Plan. Moreover, the data from this study may be used for planning and policymaking toward continuous improvement in the Department of Education.

Permission to conduct this survey has already been obtained by the principal of your school.
I understand that if I agree to participate, I will abide to:

1. accomplish the survey that requests information about myself,
2. participate voluntarily and I can stop at any time,
3. refuse to respond to any items that I am not comfortable answering,
4. ask the researcher to share the findings of the study in a forum for discussion,
5. ask the lead researcher (Name of Teacher-Researcher: Marilou D. Remot for any questions and clarifications regarding the study (Email:)marilou.remot@deped.gov.ph

* Anonymity will be observed at all stages of data recording and analysis. There are no known risks associated with accomplishing the survey questionnaire.

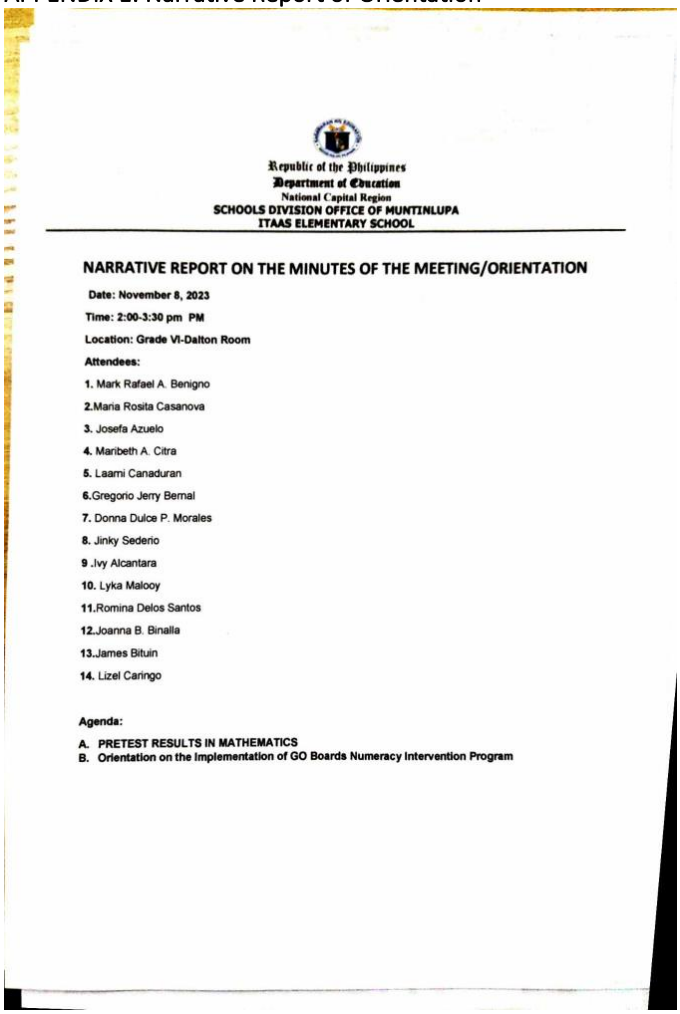
Name of Student-Participant: Stephanie L. Belagan
Name of Parent/Guardian: Sadie D. Canagulan
Signature: _____
Date: Oct. 6, 2023

This informed consent form was administered by:

Name of Teacher-Researcher: Marilou D. Remot
Signature: _____
Date: 10/6/23

Note: This Informed Consent Form will be detached from the survey and interview questionnaire you will accomplish.

APPENDIX E: Narrative Report of Orientation



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NARRATIVE REPORT ON THE MINUTES OF THE MEETING/ORIENTATION

Date: November 8, 2023
Time: 2:00-3:30 pm PM
Location: Grade VI-Dalton Room
Attendees:

1. Mark Rafael A. Benigno
2. Maria Rosita Casanova
3. Josefa Azuelo
4. Maribeth A. Citra
5. Laarni Canaduran
6. Gregorio Jerry Bernal
7. Donna Dulce P. Morales
8. Jinky Sederio
9. Ivy Alcantara
10. Lyka Malooy
11. Romina Delos Santos
12. Joanna B. Binalla
13. James Bituin
14. Lizel Caringo

Agenda:

A. **PRETEST RESULTS IN MATHEMATICS**
B. **Orientation on the Implementation of GO Boards Numeracy Intervention Program**

MINUTES Of THE MEETING/ORIENTATION

The meeting started at 2:00 p.m. with a prayer, the National Anthem, and the exercise via audio-visual presentation. A roll call of attendance to the 15 pupils.

Based on the results of the pretest, parents were called one at a time and explained to the parents that the scores showed no mastery level and they needed intervention in mathematics. The teacher asked the parents if they consented to let their sons/daughters participate in the classroom research to be conducted at Itaas Elementary School after class for 1 hour every Wednesday and Friday covering the first and second quarter of the Minimum Learning Competencies.

It was explained further and showed to them the Project GO Boards. Project GO Boards- a teaching-learning intervention to improve academic performance in mathematics. There were 16 GO Boards to be accomplished by their sons/daughters in the form of a game. The parent's responses were positive and the consent form was read and explained well by the researcher. The implementation commenced in November 10, 2023 (Friday).

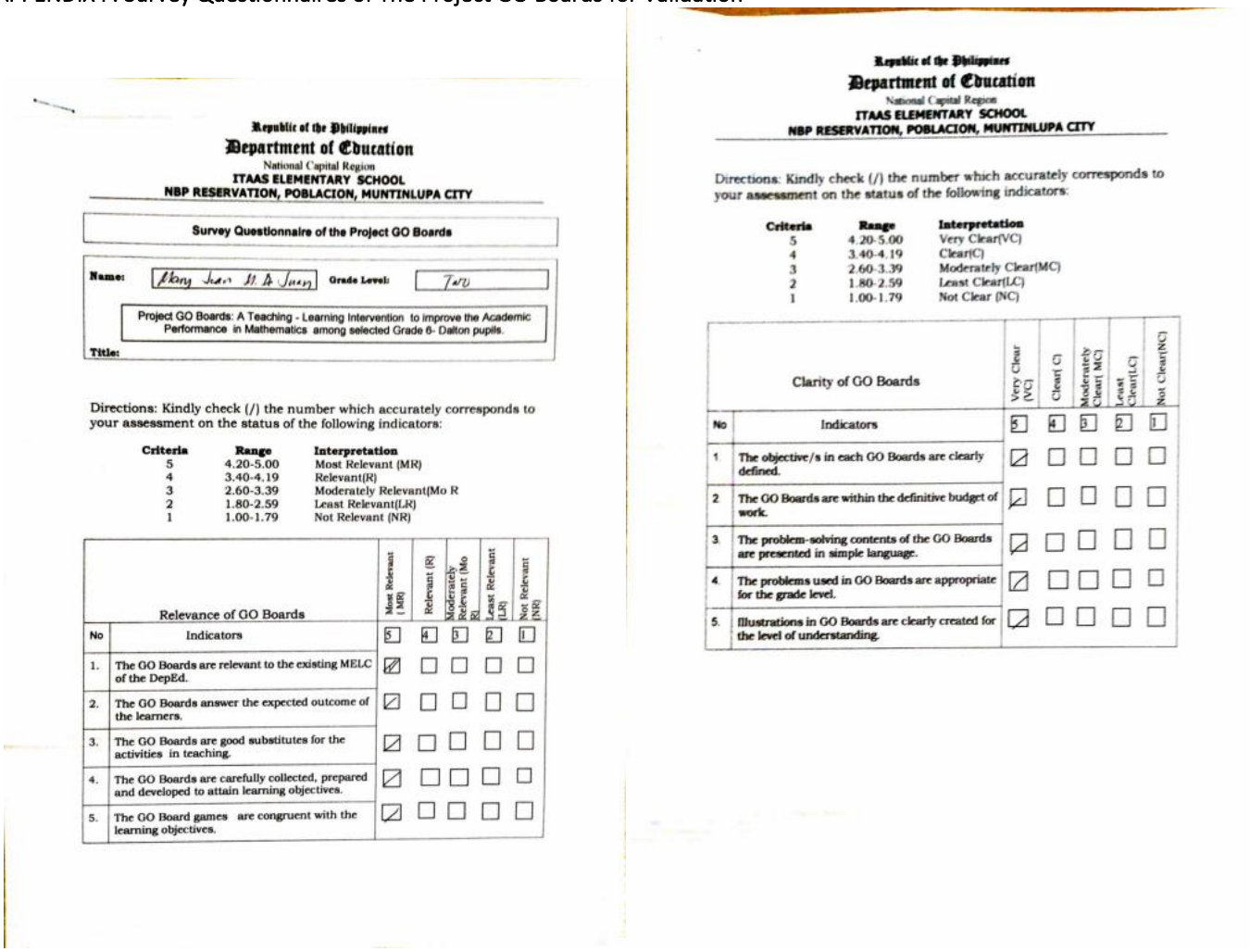
With no further questions, the meeting was adjourned.

Prepared by:

Marilou B. Remot

Reseacher

APPENDIX F: Survey Questionnaires of The Project GO Boards for Validation



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Survey Questionnaire of the Project GO Boards

Name: [illegible] Grade Level: 7

Title: Project GO Boards: A Teaching - Learning Intervention to improve the Academic Performance in Mathematics among selected Grade 8- Dalton pupils.

Directions: Kindly check (/) the number which accurately corresponds to your assessment on the status of the following indicators:

Criteria	Range	Interpretation
5	4.20-5.00	Most Relevant (MR)
4	3.40-4.19	Relevant(R)
3	2.60-3.39	Moderately Relevant(Mo R
2	1.80-2.59	Least Relevant(LR)
1	1.00-1.79	Not Relevant (NR)

Relevance of GO Boards		Most Relevant (MR)	Relevant (R)	Moderately Relevant (Mo R)	Least Relevant (LR)	Not Relevant (NR)
No	Indicators	5	4	3	2	1
1.	The GO Boards are relevant to the existing MELC of the DepEd.	☒	☐	☐	☐	☐
2.	The GO Boards answer the expected outcome of the learners.	☒	☐	☐	☐	☐
3.	The GO Boards are good substitutes for the activities in teaching.	☒	☐	☐	☐	☐
4.	The GO Boards are carefully collected, prepared and developed to attain learning objectives.	☒	☐	☐	☐	☐
5.	The GO Board games are congruent with the learning objectives.	☒	☐	☐	☐	☐

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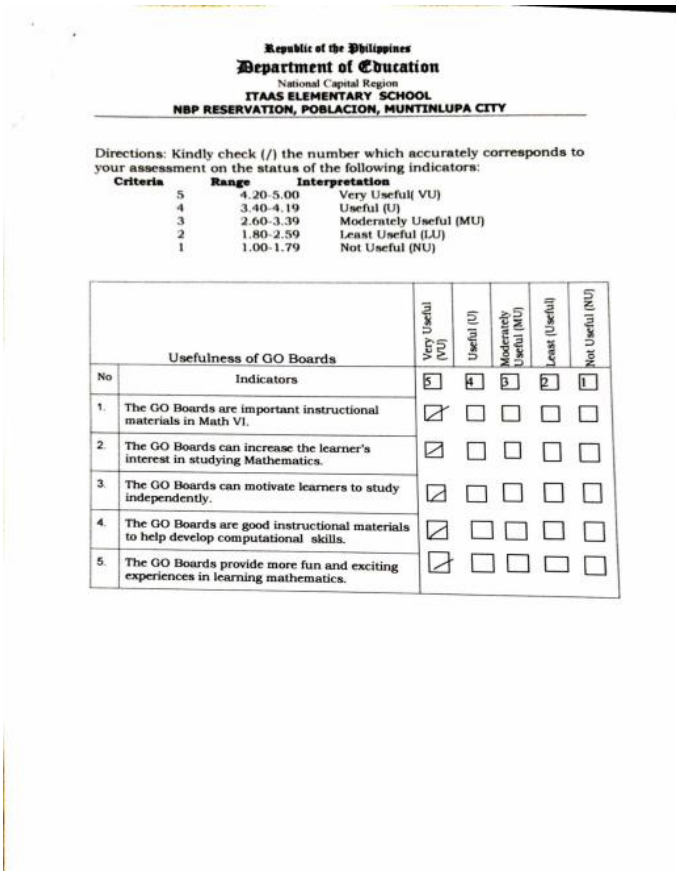
Directions: Kindly check (/) the number which accurately corresponds to your assessment on the status of the following indicators:

Criteria	Range	Interpretation
5	4.20-5.00	Very Clear(VC)
4	3.40-4.19	Clear(C)
3	2.60-3.39	Moderately Clear(MC)
2	1.80-2.59	Least Clear(LC)
1	1.00-1.79	Not Clear (NC)

Clarity of GO Boards		Very Clear (VC)	Clear(C)	Moderately Clear(MC)	Least Clear(LC)	Not Clear(NC)
No	Indicators	5	4	3	2	1
1.	The objective/s in each GO Boards are clearly defined.	☒	☐	☐	☐	☐
2.	The GO Boards are within the definitive budget of work.	☒	☐	☐	☐	☐
3.	The problem-solving contents of the GO Boards are presented in simple language.	☒	☐	☐	☐	☐
4.	The problems used in GO Boards are appropriate for the grade level.	☒	☐	☐	☐	☐
5.	Illustrations in GO Boards are clearly created for the level of understanding.	☒	☐	☐	☐	☐



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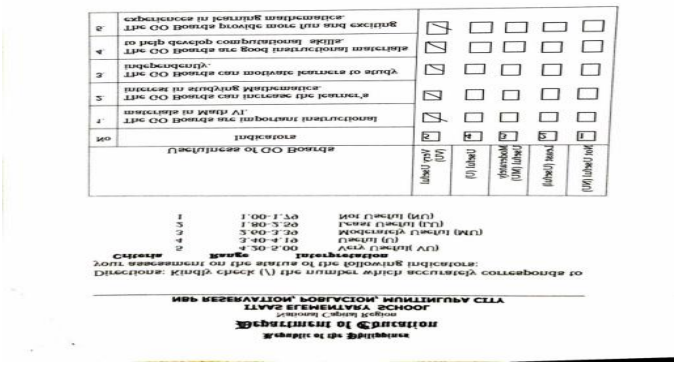
ITAAS ELEMENTARY SCHOOL
NBP RESERVATION, POBLACION, MUNTINLUPA CITY

Directions: Kindly check (/) the number which accurately corresponds to your assessment on the status of the following indicators:

Criteria	Range	Interpretation
5	4.20-5.00	Very Useful(VU)
4	3.40-4.19	Useful (U)
3	2.60-3.39	Moderately Useful (MU)
2	1.80-2.59	Least Useful (LU)
1	1.00-1.79	Not Useful (NU)

Usefulness of GO Boards		Very Useful (VU)	Useful (U)	Moderately Useful (MU)	Least Useful (LU)	Not Useful (NU)
No	Indicators	5	4	3	2	1
1.	The GO Boards are important instructional materials in Math VI.	☒	☐	☐	☐	☐
2.	The GO Boards can increase the learner's interest in studying Mathematics.	☒	☐	☐	☐	☐
3.	The GO Boards can motivate learners to study independently.	☒	☐	☐	☐	☐
4.	The GO Boards are good instructional materials to help develop computational skills.	☒	☐	☐	☐	☐
5.	The GO Boards provide more fun and exciting experiences in learning mathematics.	☒	☐	☐	☐	☐



APPENDIX G: Certification of Validated GO Boards

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Department of Education
NATIONAL CAPITAL REGION
SCHOOLS DIVISION OFFICE of MUNTINLUPA CITY
ITAAS ELEMENTARY SCHOOL

CERTIFICATION

This is to certify that the self-made GO Boards, created by **MARILOU D. REMOT**, have been thoroughly validated and checked deemed suitable for gameplay and educational purposes. The validation process was conducted and carefully evaluated in accordance with curriculum standards and best practices.

Based on the thorough validation process and the successful performance of the self-made Go Boards instructional materials. We hereby certify that GO Boards instructional materials meet the necessary standards for gameplay and educational activities.

This certification is issued upon the request of Mrs. Marilou D. Remot.
Given this 6th day of November 2023 at Itaas Elementary School.

Certified by:

ENRICO C. MADARCOS PhD
Master Teacher II

ELENA M. PADILLO
Master Teacher I

MA. KATRINA F. REMPILLO
Mathematics Teacher

CARINA DJCAYA
Mathematics Teacher

ELIZABETH P. CASTRO
Mathematics Teacher

MARLYN R. ARABIT
Mathematics Teacher

ANALYN M. FELIX
Mathematics Teacher

LEONIDA T. TIRATIRA
Mathematics Teacher

LORELIE S. ARAMBULO
Master Teacher I

MARY JEAN S. DALUGDUG
Mathematics Teacher

MERRYANN P. SAMUT
Mathematics Teacher

CATHERINE E. DE JESUS
Mathematics Teacher

MARY JEAN M. DE JUAN
Mathematics Teacher

CECILIA S. RUIZ
Mathematics Teacher

HERMENIGILDA L. ESCOBAR
Mathematics Teacher

APPENDIX H: Certification of the School Head

Republic of the Philippines
Department of Education
NATIONAL CAPITAL REGION
SCHOOLS DIVISION OFFICE of MUNTINLUPA CITY
ITAAS ELEMENTARY SCHOOL

CERTIFICATION

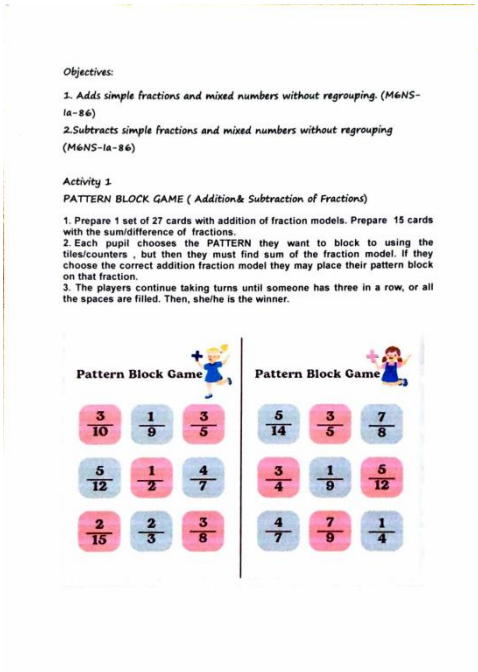
This is to certify that the self-made GO Boards, created by **MARILOU D. REMOT**, have been thoroughly validated and checked and deemed suitable for gameplay and educational purposes. The validation process was conducted and carefully evaluated by curriculum standards and best practices.

Based on the thorough validation process and the successful performance of the self-made Go Boards and endorsed by the Master Teacher In-charge and Mathematics Teachers, I hereby certify that GO Boards instructional materials meet the necessary standards for gameplay and educational activities.

This certification is issued upon the request of Mrs. Marilou D. Remot.
Given this 8th day of November 2023 at Itaas Elementary School.

ANTONIO C. GAGALA PhD
Principal III
11/8/2023

APPENDIX I: GO BOARDS



Objectives:

1. Adds simple fractions and mixed numbers without regrouping. (M6NS-Ia-86)
2.Subtracts simple fractions and mixed numbers without regrouping (M6NS-Ia-86)

Activity 1

PATTERN BLOCK GAME (Addition& Subtraction of Fractions)

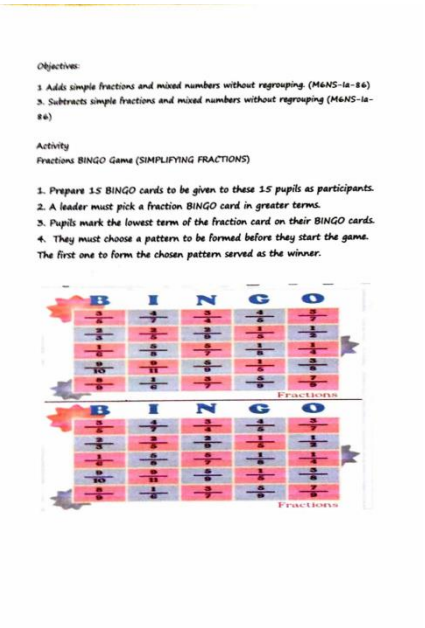
1. Prepare 1 set of 27 cards with addition of fraction models. Prepare 15 cards with the sum/difference of fractions.
2. Each pupil chooses the PATTERN they want to block to using the tiles/counters , but then they must find sum of the fraction model. If they choose the correct addition fraction model they may place their pattern block on that fraction.
3. The players continue taking turns until someone has three in a row, or all the spaces are filled. Then, she/he is the winner.

Pattern Block Game

$\frac{3}{10}$	$\frac{1}{9}$	$\frac{3}{5}$
$\frac{5}{12}$	$\frac{1}{2}$	$\frac{4}{7}$
$\frac{2}{15}$	$\frac{2}{3}$	$\frac{3}{8}$

Pattern Block Game

$\frac{5}{14}$	$\frac{3}{5}$	$\frac{7}{8}$
$\frac{3}{4}$	$\frac{1}{9}$	$\frac{5}{12}$
$\frac{4}{7}$	$\frac{7}{9}$	$\frac{1}{4}$



Objectives:

1. Adds simple fractions and mixed numbers without regrouping. (M6NS-Ia-86)
3. Subtracts simple fractions and mixed numbers without regrouping (M6NS-Ia-86)

Activity

Fractions BINGO Game (SIMPLIFYING FRACTIONS)

1. Prepare 15 BINGO cards to be given to these 15 pupils as participants.
2. A leader must pick a fraction BINGO card in greater terms.
3. Pupils mark the lowest term of the fraction card on their BINGO cards.
4. They must choose a pattern to be formed before they start the game.

The first one to form the chosen pattern served as the winner.

B I N G O

Fractions

B I N G O

Fractions

Objectives:

1. Adds simple fractions and mixed numbers with regrouping.
2. Subtracts simple fractions and mixed numbers wit

Activity

SCOOT GAME (Find the LCD Prerequisite skill for ADDITION and SUBTRACTION CONCEPTS)

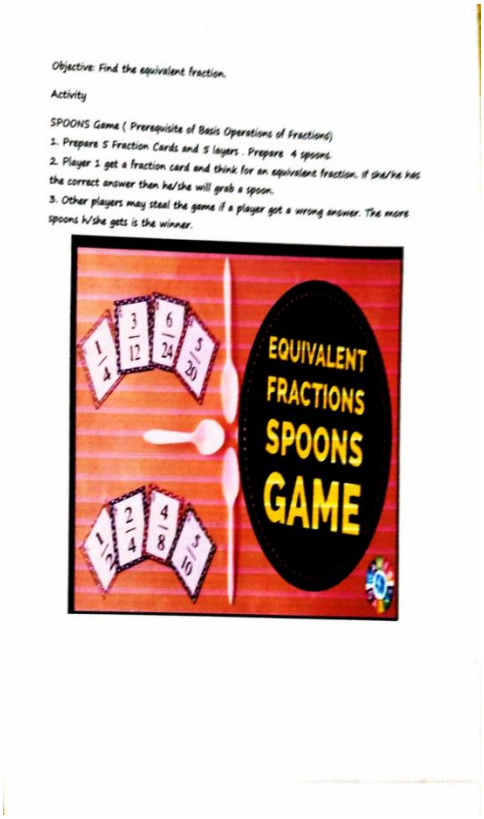
1. This game is composed of 28 cards with a worksheet of 28 boxes.
2. A pupil will open the fraction card/s randomly. Let the player think of the LCD and the first one to have the LCD will say " SCOOT" .
3. She/He writes the answer on the worksheet that corresponds the number in fraction cards. ! The player who scoot more is the winner. It's typically played whole class, but it's also a great workstation.

Name: _____ Scoot

4	5	6	7	8
9	10	11	12	13
14	15	16	17	18
19	20	21	22	23
24	25	26	27	28

Name: _____ Scoot

4	5	6	7	8
9	10	11	12	13
14	15	16	17	18
19	20	21	22	23
24	25	26	27	28



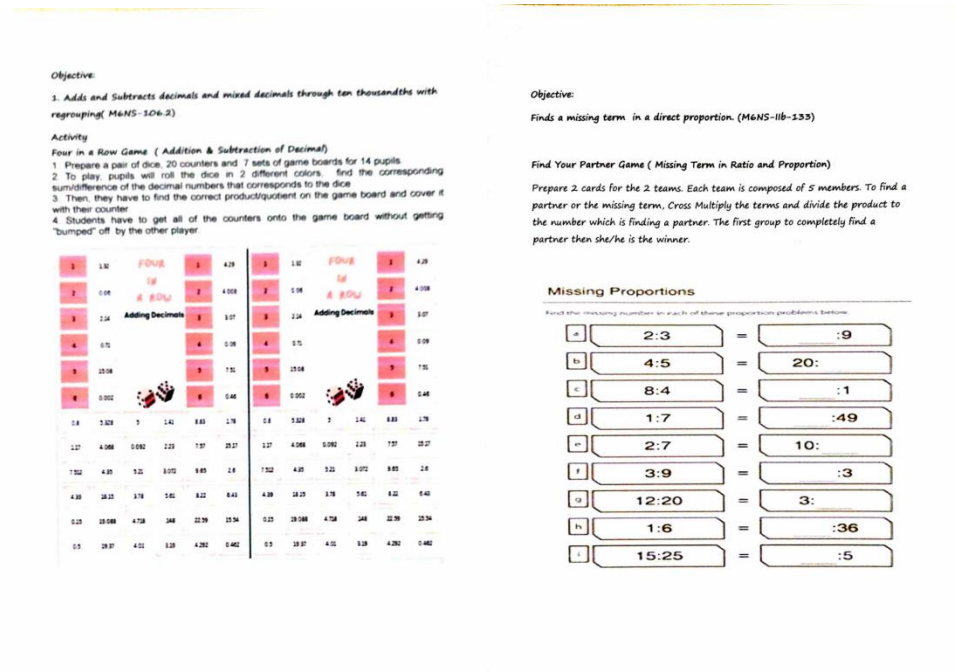
Objective: Find the equivalent fraction.

Activity

SPOONS Game (Prerequisite of Basis Operations of Fractions)

1. Prepare 5 Fraction Cards and 5 layers . Prepare 4 spoons.
2. Player 1 get a fraction card and think for an equivalent fraction. If she/he has the correct answer then he/she will grab a spoon.
3. Other players may steal the game if a player got a wrong answer. The more spoons h/she gets is the winner.

APPENDIX I: GO BOARDS



Objective:

1. Adds and Subtracts decimals and mixed decimals through ten thousandths with regrouping(M6NS-1c6.2)

Activity

Four in a Row Game (Addition & Subtraction of Decimal)

1. Prepare a pair of dice, 20 counters and 7 sets of game boards for 14 pupils.
2. To play, pupils will roll the dice in 2 different colors. find the corresponding sum/difference of the decimal numbers that corresponds to the dice
3. Then, they have to find the correct product/quotient on the game board and cover it with their counter
4. Students have to get all of the counters onto the game board without getting "bumped" off by the other player

FOUR IN A ROW

Adding Decimals

Objective:

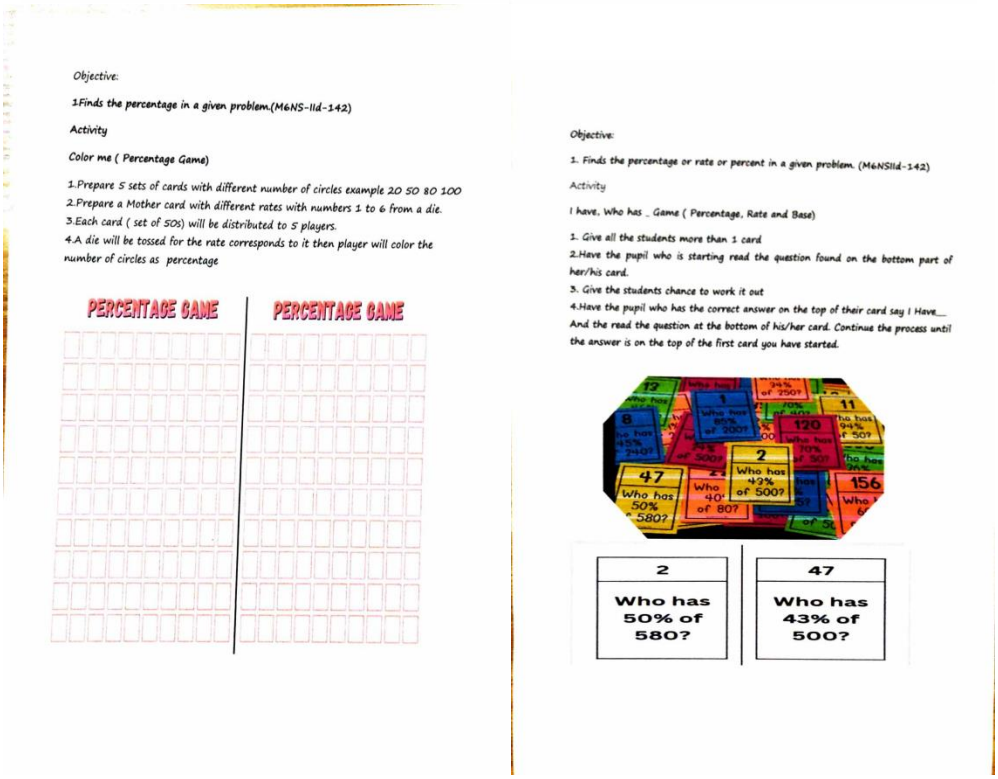
Finds a missing term in a direct proportion. (M6NS-IIb-133)

Find Your Partner Game (Missing Term in Ratio and Proportion)

Prepare 2 cards for the 2 teams. Each team is composed of 5 members. To find a partner or the missing term, Cross Multiply the terms and divide the product to the number which is finding a partner. The first group to completely find a partner then she/he is the winner.

Missing Proportions

a	2:3	=		:9
b	4:5	=	20:	
c	8:4	=		:1
d	1:7	=		:49
e	2:7	=	10:	
f	3:9	=		:3
g	12:20	=	3:	
h	1:6	=		:36
i	15:25	=		:5



Objective:

1.Finds the percentage in a given problem.(M6NS-IId-142)

Activity

Color me (Percentage Game)

1.Prepare 5 sets of cards with different number of circles example 20 50 80 100
2.Prepare a Mother card with different rates with numbers 1 to 6 from a die.
3.Each card (set of 50s) will be distributed to 5 players.
4.A die will be tossed for the rate corresponds to it then player will color the number of circles as percentage

PERCENTAGE GAME

PERCENTAGE GAME

Objective:

1. Finds the percentage or rate or percent in a given problem. (M6NSIId-142)

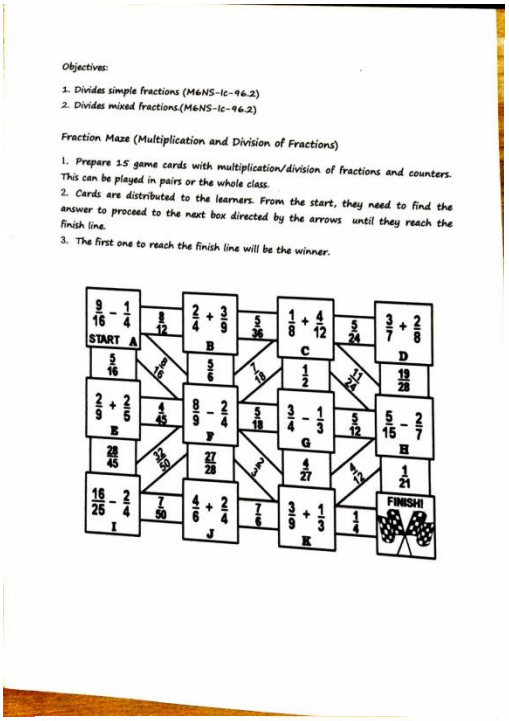
Activity

I have, Who has _ Game (Percentage, Rate and Base)

1. Give all the students more than 1 card
2.Have the pupil who is starting read the question found on the bottom part of her/his card.
3. Give the students chance to work it out
4.Have the pupil who has the correct answer on the top of their card say I Have__ And the read the question at the bottom of his/her card. Continue the process until the answer is on the top of the first card you have started.

2	47
Who has 50% of 580?	Who has 43% of 500?

APPENDIX I- GO BOARDS

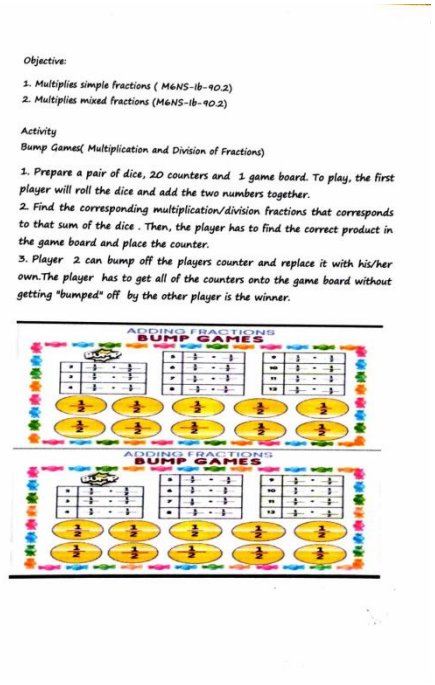


Objectives:

1. Divides simple fractions (M6NS-Ic-96.2)
2. Divides mixed fractions.(M6NS-Ic-96.2)

Fraction Maze (Multiplication and Division of Fractions)

1. Prepare 15 game cards with multiplication/division of fractions and counters. This can be played in pairs or the whole class.
2. Cards are distributed to the learners. From the start, they need to find the answer to proceed to the next box directed by the arrows until they reach the finish line.
3. The first one to reach the finish line will be the winner.



Objective:

1. Multiplies simple fractions (M6NS-Ib-90.2)
2. Multiplies mixed fractions (M6NS-Ib-90.2)

Activity
Bump Games(Multiplication and Division of Fractions)

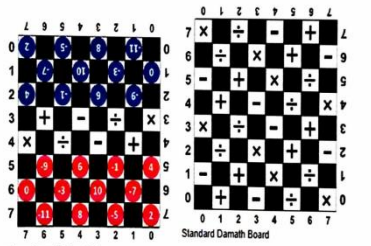
1. Prepare a pair of dice, 20 counters and 1 game board. To play, the first player will roll the dice and add the two numbers together.
2. Find the corresponding multiplication/division fractions that corresponds to that sum of the dice . Then, the player has to find the correct product in the game board and place the counter.
3. Player 2 can bump off the players counter and replace it with his/her own.The player has to get all of the counters onto the game board without getting "bumped" off by the other player is the winner.

Objective:

1. Performs the basic operations of integers with like and unlike signs.(M6NS-III-156)

Damath on Integers (Add, Subtract, Multiply& Divide the integers)

1. Prepare 1 Damath board. It has numbers labeled 0-7 on its sides to determine the coordinates of the piece. Prepare also a score sheet for both players.
2.All square tiles have their mathematical operations with chips arrange by the player. All odd numbers are negative and even numbers are positive.
3.The score is obtained by calculating the number value of player's piece which captures the opponent's piece and the captured piece. The mathematical operation used depends where the player's piece lands after the capture
4.Final score is determined by adding all the value of the remaining piece against the scores obtained from capturing opponent's piece.The one who has highest score is the winner.



nteger Damath Piece Setup

Standard Damath Board

Objective:

1. Adds and Subtracts decimals and mixed decimals through ten thousandths without regrouping(M6NS-106.2)

Activity

MISSED ME? Game (Addition & Subtraction of decimals)
1. Find the missing digit, if the missing number is in the addends.
2. Subtract the sum from one of the addends, if the missing is the sum/difference, add /subtract the two numbers.
3. The first one to finish answering the game cards correctly is the winner.

APPENDIX I: GO BOARDS

Objective:

1. Finds the percentage in a given problem.(M6NS-IId-142)

Bargain Hunter Game (Percentage, Rate and Base)

1. Pick 5 items at the Bargain.
2. Player will solve for the percentage and hunt the prices in the Go Cards by placing s counter to the prices.
3. Player who can hunt the the prices of the 5 items at the Bargain is the winner

Objectives:

1. Perform aaditon of Integers with like signs.
2. Perform addition of integers with unlike signs

Activity
SNAKE Game (Operation with integers)
1. Prepare 2 game boards for 2 players, Cards containing Addition, Subtraction of Integers are to be placed at the middle .
2. Player 1 who plays first get the integer cards from the top and compute. If the answer is negative, the counter moves backward then if the answer is positive, the counter moves forward.
3. They take turns in getting the integer cards, the player who reach the finish line is the winner.

Objectives:

1.Adds simple fractions and mixed numbers with regrouping.
2.Subtracts simple fractions and mixed numbers with regrouping.

Activity
Fraction Maze (Addition & Subtraction of Fractions)

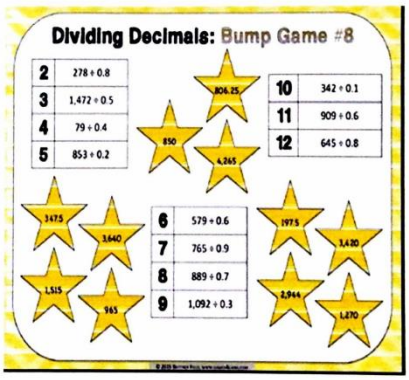
1. Prepare 15 game cards with addition/subtraction of fractions and counters. This can be played in pairs or the whole class.
2. Cards are distributed to the learners. From the start, they need to find the answer to proceed to the next box directed by the arrows until they reach the finish line.
3. The first one to reach the finish line will be the winner.

Objective:

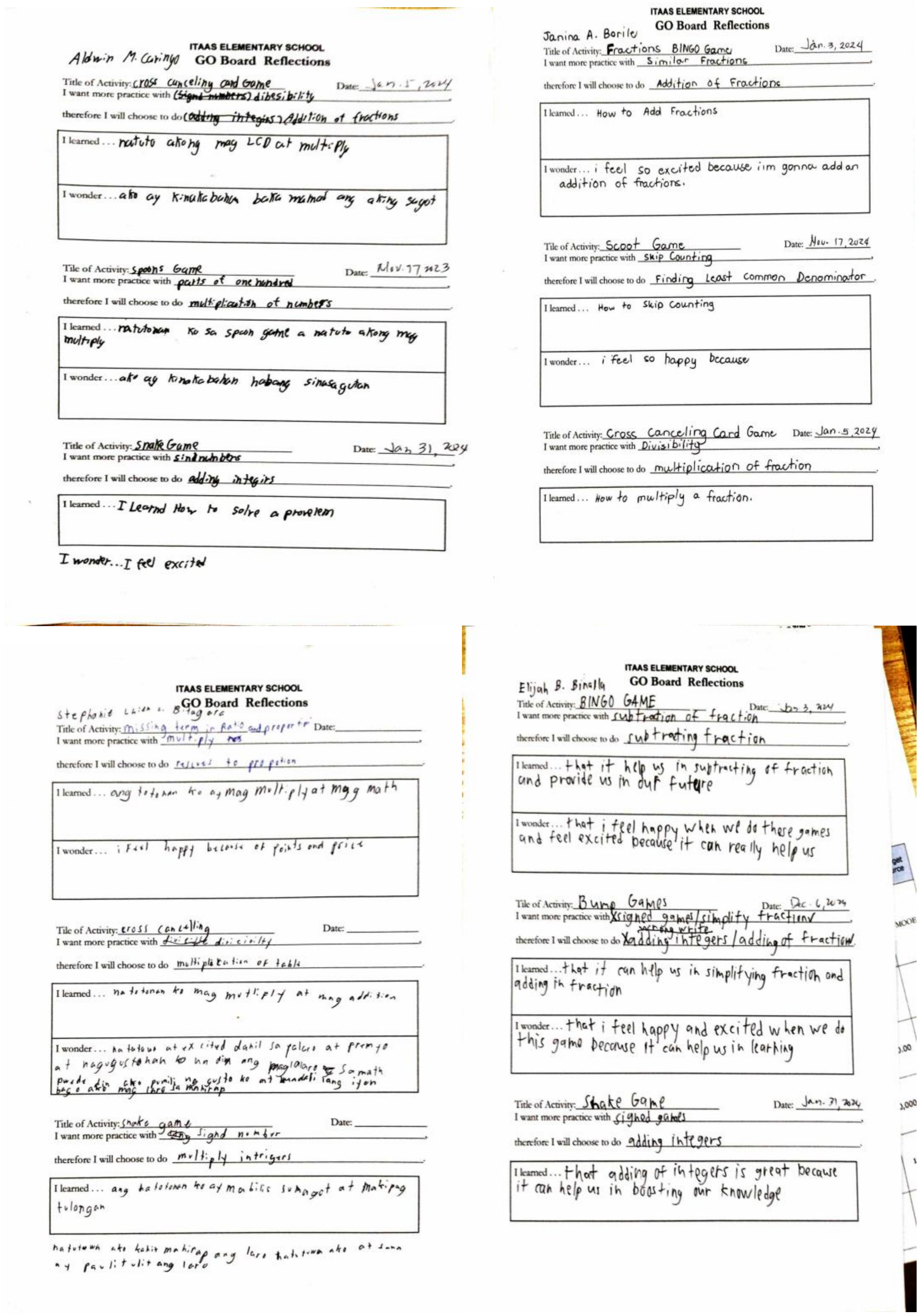
1. Divides whole numbers by decimals up to 2 places and vice versa. (M6NS Ij - 120.3)

Bump Game (Multiplication and Division of Decimal Numbers)

1. Prepare a pair of dice, 11 counters and 7 sets of game boards for 14 pupils.
2. To play, pupils will roll the dice , find the corresponding product/quotient of the decimal numbers that corresponds to the dice .
3. Then, they have to find the correct product/quotient on the game board and cover it with their counter.
4. Students have to get all of the counters onto the game board without getting "bumped" off by the other player.



APPENDIX J: PUPILS' REFLECTIONS


ITAAS ELEMENTARY SCHOOL
GO Board Reflections
Aldwin M. Caringo
Title of Activity: cross canceling card Game Date: Jan. 5, 2024
I want more practice with (signed numbers) divisibility
therefore I will choose to do (adding integers) addition of fractions
I learned… natuto akong mag LCD at multiply
I wonder… ako ay kinakabahan baka mamali ang aking sagot
Title of Activity: Spoons Game Date: Nov. 17 2023
I want more practice with parts of one hundred
therefore I will choose to do multiplication of numbers
I learned… natutonan ko sa spoon game a natuto akong mag multiply
I wonder… ako ay kinakabahan habang sinasagutan
Title of Activity: Snake Game Date: Jan. 31, 2024
I want more practice with sind numbers
therefore I will choose to do adding integers
I learned… I Learnd How to solve a provlem
I wonder… I feel excited

ITAAS ELEMENTARY SCHOOL
GO Board Reflections
Janina A. Barile
Title of Activity: Fractions BINGO Game Date: Jan. 3, 2024
I want more practice with Similar Fractions
therefore I will choose to do Addition of Fractions
I learned… How to Add Fractions
I wonder… i feel so excited because i'm gonna add an addition of fractions.
Title of Activity: Scoot Game Date: Nov. 17, 2024
I want more practice with Skip Counting
therefore I will choose to do Finding Least Common Denominator
I learned… How to Skip Counting
I wonder… i feel so happy because
Title of Activity: Cross Canceling Card Game Date: Jan. 5, 2024
I want more practice with Divisibility
therefore I will choose to do multiplication of fraction
I learned… How to multiply a fraction.

ITAAS ELEMENTARY SCHOOL
GO Board Reflections
Stephanie
Title of Activity: missing term in Ratio and proportion Date:
I want more practice with multiply
therefore I will choose to do ratio to proportion
I learned… ang natutunan ko ay mag multiply at mag math
I wonder… i feel happy because of points and prize
Title of Activity: cross canceling Date:
I want more practice with divisibility
therefore I will choose to do multiplication of table
I learned… natutunan ko mag multiply at mag addition
I wonder… natutuwa at excited dahil sa palaro at premyo at nagugustuhan ko na din ang maglaro sa math
Title of Activity: snake game Date:
I want more practice with signed number
therefore I will choose to do multiply intigers
I learned… ang natutunan ko ay mabilis sumagot at makipag tulungan
natutuwa ako kahit mahirap ang laro

ITAAS ELEMENTARY SCHOOL
GO Board Reflections
Elijah B. Binalla
Title of Activity: BINGO GAME Date: Jan. 3, 2024
I want more practice with subtraction of fraction
therefore I will choose to do subtracting fraction
I learned… that it help us in subtracting of fraction and provide us in our future
I wonder… that i feel happy when we do there games and feel excited because it can really help us
Title of Activity: Bump Games Date: Dec. 6, 2024
I want more practice with signed game/simplify fraction
therefore I will choose to do adding integers/adding of fraction
I learned… that it can help us in simplifying fraction and adding in fraction
I wonder… that i feel happy and excited when we do this game because it can help us in learning
Title of Activity: Snake Game Date: Jan. 31, 2024
I want more practice with signed games
therefore I will choose to do adding integers
I learned… that adding of integers is great because it can help us in boosting our knowledge

APPENDIX K: Documentation

ADMINISTRATION OF PRETEST

Selected Grade VI-Dalton took their Pre-Test under the supervision of the researcher.

ADMINISTRATION OF POST TEST

Selected Grade VI-Dalton took their Post-Test under the supervision of the researcher.

Orientation of Parents and Pupils

ITAAS ELEMENTARY SCHOOL
ORIENTATION ON THE CONDUCT OF CLASSROOM ACTION RESEARCH
GRADE: SIX- DALTON
SY 2023-2024

NO.	NAME OF PUPILS	08-Nov-23	
	BOYS	NAME OF PARENTS	SIGNATURE
1	BENGUIG, MARC JACOB A.		
2	CASANOVA, ZACHARY		
3	AJOC, CLARIN MARTINEZ		
4	CITRA, ROBBIE JAMES A.		
5	BITAGARA, STEPHANIE I.		
6	BERNAL, CHRISTALLE A.		
7	CANAYRANCA, DINCKY B.		
8	CABANERO, JACKELYN S.		
9	CABANERO, JOSEPHINE S.		
10	BORJE, JANINA A.		
11	BELTA, KRISTINE MAE M.		
12	BORERO, PRINCESS ANN		
13	BINALLA, ELIJAH B.		
14	BITUIN, JULIAN REY		
15	CARINGO, ALDWIN M.		

MARILOU D. REMOT
RESEACHER


Department of Education

PUPILS' LOGBOOK FOR THE UTILIZATION OF GO BOARDS


Project GO BOARDS

Attendance

UTILIZATION OF GO BOARDS




Selected Grade VI-Dalton played the Snake Game GO BOARD per group and individual.

UTILIZATION OF GO BOARDS

Selected Grade VI-Dalton played Pattern Block GO BOARD by team or pair.

UTILIZATION OF GO BOARDS

Selected Grade VI-Dalton played the Puzzle GO BOARD by team or pair.

UTILIZATION OF GO BOARDS

Selected Grade VI-Dalton played the Math Maze GO BOARD by team or pair.

APPENDIX L: DATA ANALYSIS RESULTS OF THE PRETEST & POST-TEST USING CORRELATED T-TEST

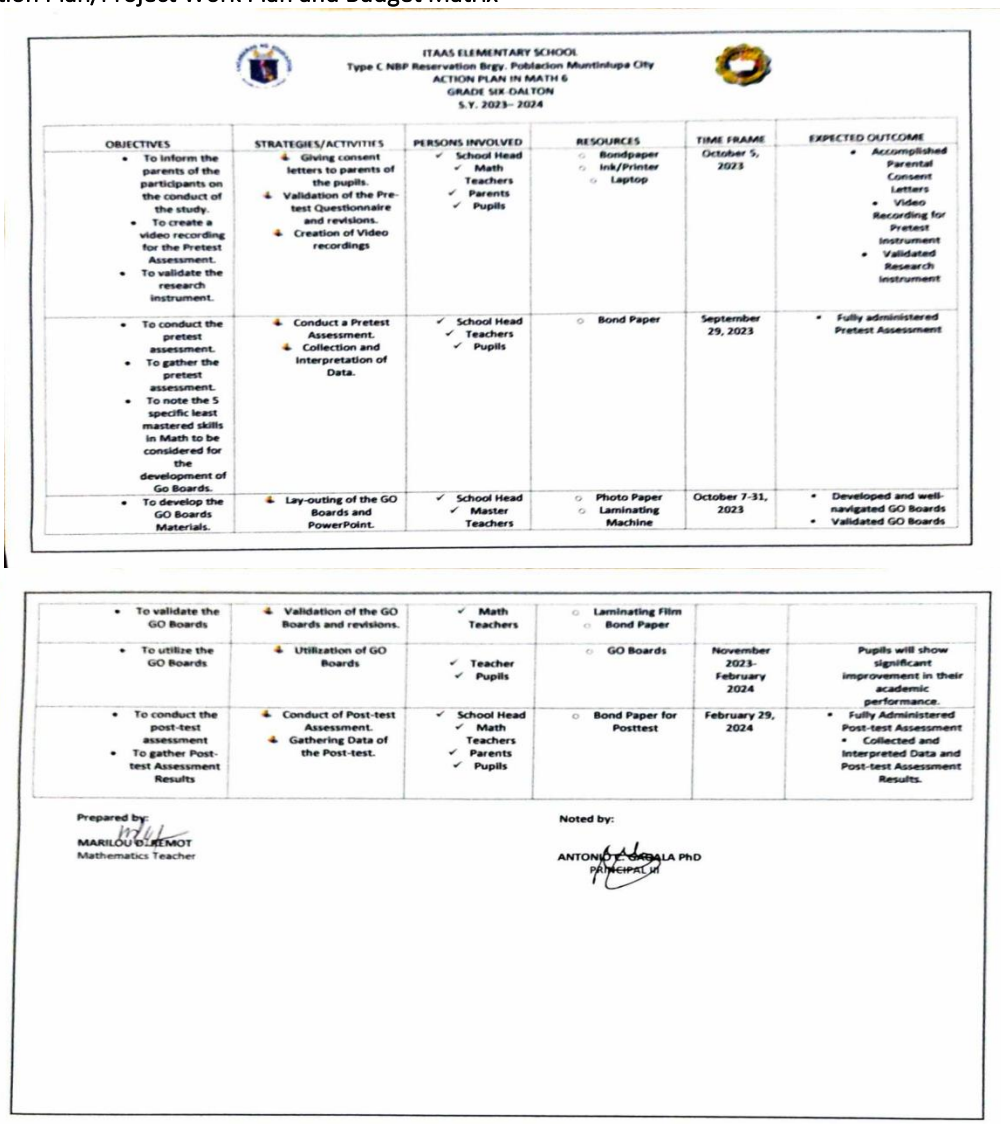
DATA ANALYSIS USING MICROSOFT EXCEL - CORRELATED T - TEST

PRETEST	POSTTEST
2	14
4	14
6	12
2	15
3	15
7	14
2	13
1	12
3	14
4	15
3	14
2	15
5	15
5	13
2	15

t-Test: Paired Two Sample for Means

	PRETEST	*POST TEST*
Mean	3.4	14
Variance	2.971428571	1.142857143
Observations	15	15
Pearson Correlation	-0.116282564	
Hypothesized Mean Difference	0	
df	14	
t Stat	-19.26136028	
P(T<=t) one-tail	8.94938E-12	
t Critical one-tail	1.761310136	
P(T<=t) two-tail	1.78988E-11	
t Critical two-tail	2.144786688	

APPENDIX M: Action Plan/Project Work Plan and Budget Matrix

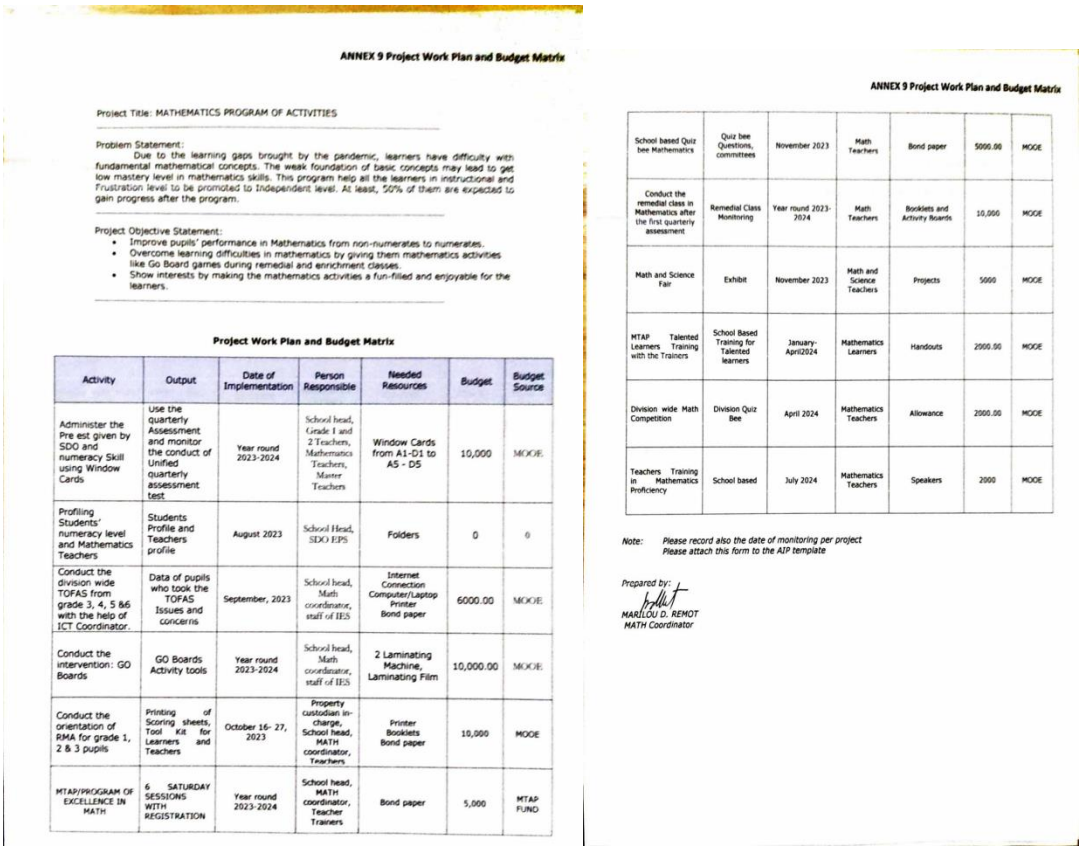


ITAAS ELEMENTARY SCHOOL
Type C NBP Reservation Brgy. Poblacion Muntinlupa City
ACTION PLAN IN MATH 6
GRADE SIX-DALTON
S.Y. 2023- 2024

OBJECTIVES	STRATEGIES/ACTIVITIES	PERSONS INVOLVED	RESOURCES	TIME FRAME	EXPECTED OUTCOME
• To inform the parents of the participants on the conduct of the study. • To create a video recording for the Pretest Assessment. • To validate the research instrument.	Giving consent letters to parents of the pupils. Validation of the Pre-test Questionnaire and revisions. Creation of Video recordings	✓ School Head ✓ Math Teachers ✓ Parents ✓ Pupils	○ Bondpaper ○ Ink/Printer ○ Laptop	October 5, 2023	• Accomplished Parental Consent Letters • Video Recording for Pretest Instrument • Validated Research Instrument
• To conduct the pretest assessment. • To gather the pretest assessment. • To note the 5 specific least mastered skills in Math to be considered for the development of Go Boards.	Conduct a Pretest Assessment. Collection and Interpretation of Data.	✓ School Head ✓ Teachers ✓ Pupils	○ Bond Paper	September 29, 2023	• Fully administered Pretest Assessment
• To develop the GO Boards Materials.	Lay-outing of the GO Boards and PowerPoint.	✓ School Head ✓ Master Teachers	○ Photo Paper ○ Laminating Machine	October 7-31, 2023	• Developed and well-navigated GO Boards • Validated GO Boards
• To validate the GO Boards	Validation of the GO Boards and revisions.	✓ Math Teachers	○ Laminating Film ○ Bond Paper		
• To utilize the GO Boards	Utilization of GO Boards	✓ Teacher ✓ Pupils	○ GO Boards	November 2023-February 2024	Pupils will show significant improvement in their academic performance.
• To conduct the post-test assessment • To gather Post-test Assessment Results	Conduct of Post-test Assessment. Gathering Data of the Post-test.	✓ School Head ✓ Math Teachers ✓ Parents ✓ Pupils	○ Bond Paper for Posttest	February 29, 2024	• Fully Administered Post-test Assessment • Collected and Interpreted Data and Post-test Assessment Results.

Prepared by:
MARILOU D. LEMOT
Mathematics Teacher

Noted by:
ANTONIO C. GABALA PhD
PRINCIPAL III



ANNEX 9 Project Work Plan and Budget Matrix

Project Title: MATHEMATICS PROGRAM OF ACTIVITIES

Problem Statement:
Due to the learning gaps brought by the pandemic, learners have difficulty with fundamental mathematical concepts. The weak foundation of basic concepts may lead to get low mastery level in mathematics skills. This program help all the learners in instructional and frustration level to be promoted to Independent level. At least, 50% of them are expected to gain progress after the program.

Project Objective Statement:
- Improve pupils' performance in Mathematics from non-numerates to numerates.
- Overcome learning difficulties in mathematics by giving them mathematics activities like Go Board games during remedial and enrichment classes.
- Show interests by making the mathematics activities a fun-filled and enjoyable for the learners.

Project Work Plan and Budget Matrix

Activity	Output	Date of Implementation	Person Responsible	Needed Resources	Budget	Budget Source
Administer the Pre est given by SDO and numeracy Skill using Window Cards	Use the quarterly Assessment and monitor the conduct of Unified quarterly assessment test	Year round 2023-2024	School head, Grade I and 2 Teachers, Mathematics Teachers, Master Teachers	Window Cards from A1-D1 to A5 - D5	10,000	MOOE
Profiling Students' numeracy level and Mathematics Teachers	Students Profile and Teachers profile	August 2023	School Head, SDO EPS	Folders	0	0
Conduct the division wide TOFAS from grade 3, 4, 5 &6 with the help of ICT Coordinator.	Data of pupils who took the TOFAS Issues and concerns	September, 2023	School head, Math coordinator, staff of IES	Internet Connection Computer/Laptop Printer Bond paper	6000.00	MOOE
Conduct the intervention: GO Boards	GO Boards Activity tools	Year round 2023-2024	School head, Math coordinator, staff of IES	2 Laminating Machine, Laminating Film	10,000.00	MOOE
Conduct the orientation of RMA for grade 1, 2 & 3 pupils	Printing of Scoring sheets, Tool Kit for Learners and Teachers	October 16- 27, 2023	Property custodian in-charge, School head, MATH coordinator, Teachers	Printer Booklets Bond paper	10,000	MOOE
MTAP/PROGRAM OF EXCELLENCE IN MATH	6 SATURDAY SESSIONS WITH REGISTRATION	Year round 2023-2024	School head, MATH coordinator, Teacher Trainers	Bond paper	5,000	MTAP FUND

ANNEX 9 Project Work Plan and Budget Matrix

School based Quiz bee Mathematics	Quiz bee Questions, committees	November 2023	Math Teachers	Bond paper	5000.00	MOOE
Conduct the remedial class in Mathematics after the first quarterly assessment	Remedial Class Monitoring	Year round 2023-2024	Math Teachers	Booklets and Activity Boards	10,000	MOOE
Math and Science Fair	Exhibit	November 2023	Math and Science Teachers	Projects	5000	MOOE
MTAP Talented Learners Training with the Trainers	School Based Training for Talented learners	January-April2024	Mathematics Learners	Handouts	2000.00	MOOE
Division wide Math Competition	Division Quiz Bee	April 2024	Mathematics Teachers	Allowance	2000.00	MOOE
Teachers Training in Mathematics Proficiency	School based	July 2024	Mathematics Teachers	Speakers	2000	MOOE

Note: Please record also the date of monitoring per project
Please attach this form to the AIP template

Prepared by:
MARILOU D. REMOT
MATH Coordinator