

**Project 143: Strategic Math Drill to aid 4 Fundamental Operations mastery of Key Stage 1 and 2 ODL learners of San Francisco Elementary School, Binan City SY 2021- 2022**



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**ABSTRACT**

The idea of the Project 143 is to maximize the strategic Math drill that shows same paradigm with all Math teachers and test whether it will benefit the students in targeting the mastery level and speed level in four fundamental operations in which questions or drill was organized by its difficulty like 1 hard/difficult question, 4 medium or average questions and 3 easy questions.

The math drill is the starting point of the engine class to heat their math skills but the idea of the project 143 is shooting the brain's part in numeracy to stimulate and not just to spark up.

The problem that many Math teachers encountered is the mastery of what we called the foundation of all numerates. When students failed to recognize the ability to solve and compute for the 4 fundamental operations is a big problem to solve.

Project 143 had shown good impact in all students in a new normal set up in an online class in particular. It helped them to practice basic Math four fundamental operations. Whereas, consistent drill before the lesson is effectively engaging the learners in an online set up to challenge and to keep an eye to a wider range of learning acquired thru strategic Math drill.

From the results of the post-test given to the participants, this action research can rest assured that learning basic Math is essential in the online class to further enhance Math skills under the Most Essential Learning Competencies. Thus, the researcher wants Math teachers to use strategic drills like Project 143 before the proper lesson started is highly recommended to meet the learning gap and achieved the goals in increasing numeracy level.

Furthermore, practicing basic Math skills can be done not only during the pre-activities but suggested to inculcate on the learners' free time to ensure the best results.

## INTRODUCTION

Math drill had a great impact in learner's numeracy development and improvement. Four Fundamental operation on the other hand must be mastered with skills and speed by the learners in early stage of their schooling may it be in distance and face to face mode of learning. Math drill has something to do in the progression of the Math learners ability to level up and fully-developed.

Numeracy in a wider sense must be accompanied by the strategic Math drill before the lesson of the Math teacher to be able to master all the four (4) basic operation while teaching and learning happens right away. This may include the teacher's innovation to produce drills that make sense and learners will motivate and developed their skills in Math. According to study.com Math drills are sets of math questions that help students improve their accuracy and speed. Math drills are quick sets of math questions that allow students to practice the concepts they've learned through repetition. Math drills are focused around improving the accuracy and speed with which students answer questions. From

these definition, the research designed a strategic game plan in presenting a Math Drill.

Project 143 is certain to inculcate Math drill that will follow the (3) level of difficulty in giving it to the learners. 1 for hard question, 4 for average level of questions and 3 for easy level. This also will signify that 143 is loving Math or numbers. The researcher knows that there are lots of Math Drills/worksheet available online but teachers the researcher want to prove that systematic giving of Math drill will surely affect one's ability to level up his/her numeracy skills and all lying fundamentals of basic fundamental operations.

This agree with the concept of Bloom's Taxomy, (Bloom et al. (1956) proposed a taxonomy in an attempt to categorize levels of mastery in a general framework. Bloom identified a hierarchy of six levels of cognitive domains, ranging from mere recall up to synthesis and evaluation, in relation to this the researcher incorporate level of difficulty in giving Math drill effectively. The research has something to do with the level of difficulty which aim to develop the

deepen numeracy skills of the learners

## METHODOLOGY

This research is a school-wide and Math ODL learners will participate in the Project 143 strategic Math drill

There are 241 ODL learners from Grades 1 -6 in San Francisco Elementary School that are respondents in this research.

All Math ODL learners are combination of learners who are numerates and non-numerates, they are attending their classes online or virtually.

Purposive and convenience sampling will be used in choosing the respondents for this study. They are handled by Math teachers in key stage 1 and 2.

The researcher asked the permission to the School principal and parents of the learners to conduct the study. The researcher together with School Math teachers will do the strategic Math drill in 4 fundamental operations.

The researcher asked validation from the School Master Teacher and School Math

Coordinator and School LRDMS coordinator to verify the content of the materials to be used in the study.

Data Collection instruments on the respondents' level of satisfaction to the school procedures of the unit before and after the study; on the tracking of the start and end line of every procedure; and on the effectiveness of the process will be employed in this research.

Standardized Tests. This include questions that would describe the non-numerates pupils in Mathematics.

Observation Records. This include the observation behavior and analytical thinking of those who are non-numerates.

Questionnaires. This include statement about pupils' personal feeling about their mathematical abilities.

Focus Group Discussion. This is a group discussion of teachers on the use of effective strategies to be used for non-numerates.

Respondents will also be interviewed to verify their responses in these data collection instruments.

The data collection through questionnaires / test / observation

and group discussion will be done in (3) months by asking concerned school principal and low mastery pupils in division skill to answer the mentioned instruments as they transact with the unit within the time of study. As soon as all instruments are accomplished by the selected respondents, consolidation of results will be done. These results will then be disseminated to the office clientele.

The data that will be collected in this study will organize and classified based on the research design and the problems formulated. The data will be encoded, will be tallied and will tabulate to facilitate the presentation and interpretation of results using the following:

- A. **Percentage Method**- used in determining the percent or part of a variable.

### DISCUSSION

Table1. Key Stage 1 Grade 1-3 online class Pre Test and Post Test Results

Grade ONE ODL Learners	Pre Test	Post Test	Grade TWO ODL Learners	Pre Test	Post Test	Grade THREE ODL Learners	Pre Test	Post Test
<i>Student A</i>	19	20	<i>Student A</i>	16	17	<i>Student A</i>	26	27
<b>B</b>	18	20	<b>B</b>	17	18	<b>B</b>	12	13
<b>C</b>	13	20	<b>C</b>	18	19	<b>C</b>	24	25
<b>D</b>	18	20	<b>D</b>	20	17	<b>D</b>	28	29
<b>E</b>	14	19	<b>E</b>	17	15	<b>E</b>	19	20
<b>F</b>	18	18	<b>F</b>	18	19	<b>F</b>	29	30

<b>G</b>	17	19	<b>G</b>	20	20	<b>G</b>	28	29
<b>H</b>	19	20	<b>H</b>	19	20	<b>H</b>	25	26
<b>I</b>	18	18	<b>I</b>	16	15	<b>I</b>	6	5
<b>J</b>	18	20	<b>J</b>	18	17	<b>J</b>	26	27
<b>K</b>	19	20	<b>K</b>	15	12	<b>K</b>	28	29
<b>L</b>	17	20	<b>L</b>	20	18	<b>L</b>	26	27
<b>M</b>	18	15	<b>M</b>	16	18	<b>M</b>	21	22
<b>N</b>	19	20	<b>N</b>	19	19	<b>N</b>	27	30
<b>O</b>	19	20	<b>O</b>	20	17	<b>O</b>	26	28
<b>P</b>	19	18				<b>P</b>	9	10
<b>Q</b>	18	20				<b>Q</b>	12	13
						<b>R</b>	21	22
						<b>S</b>	29	28

The results of pre and post-test of select respondents in Key stage 1 showed an increasing pattern of scores specially in Grade 1 ODL learners and some Grade 2 and Grade 3 learners. The results are a proof that learning thru basic or Math fundamental operations thru strategic drill must continue not only in online class but in next normal.

Grade FOUR ODL Learners	Pre Test	Post Test	Grade Five ODL Learners	Pre Test	Post Test	Grade SIX ODL Learners	Pre Test	Post Test
<b>Student A</b>	6	16	<b>Student A</b>	13	20	<b>Student A</b>	20	28
<b>B</b>	10	22	<b>B</b>	12	18	<b>B</b>	24	34
<b>C</b>	7	18	<b>C</b>	10	16	<b>C</b>	19	27
<b>D</b>	10	23	<b>D</b>	13	10	<b>D</b>	20	35
<b>E</b>	12	27	<b>E</b>	12	21	<b>E</b>	23	32
<b>F</b>	5	19	<b>F</b>	17	23	<b>F</b>	12	36
<b>G</b>	7	23	<b>G</b>	7	20	<b>G</b>	22	27
<b>H</b>	9	28	<b>H</b>	17	22	<b>H</b>	18	16
<b>I</b>	5	20	<b>I</b>	6	17	<b>I</b>	18	28
<b>J</b>	3	17	<b>J</b>	15	32	<b>J</b>	22	29
<b>K</b>	7	25	<b>K</b>	13	26	<b>K</b>	24	34
<b>L</b>	6	22	<b>L</b>	13	24	<b>L</b>	29	35
<b>M</b>	9	18	<b>M</b>	12	24	<b>M</b>	25	33
<b>N</b>	8	29	<b>N</b>	15	14	<b>N</b>	23	37
<b>O</b>	8	24	<b>O</b>	13	20	<b>O</b>	10	17
<b>P</b>	9	25						

Table 2 Key Stage 2 Grade 4-6 online class Pre Test and Post Test Results

The results of pre and post-test of select respondents in Key stage 2 appeared an ascending scores in Grade four to six select ODL learners. The post test of the key stage 2 has a great leap in terms of scores. The learners improved with the drill that they had and occupied a great increased in almost all the select respondents.

**Table 3 Results of Pre-test Mean Percentage Score (MPS) and Post-test MPS**

School ID	Key Stage	Grade Level	Cases			MPS (Mean Percentage Score)	
			M	F	T	Pre	Post
108228	Key Stage 1	ONE	9	9	<b>18</b>	88%	96%
		TWO	8	8	<b>16</b>	89%	87%
		THREE	8	12	<b>20</b>	74%	77%
	Key Stage 2	FOUR	7	10	<b>17</b>	72%	75%
		FIVE	7	7	<b>14</b>	42%	51%
		SIX	6	9	<b>15</b>	69%	75%
		<b>Total</b>	<b>45</b>	<b>55</b>	<b>100</b>	<b>72%</b>	<b>77%</b>

Table 3 is a summary of the results of pre-test and post-test taken by the select Grades 1-6 ODL learners.

It is noted that Grade 1 increase by almost 12% as well as Grade three and four with both increased by 3%. Meanwhile Grade five increased mark as 9% while Grade six obtained 6%. On the other hand, only Grade two learners decreased by only 2%, but over all MPS of the Key stage one and two has significant increased by 5%.

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