

Assessment of Project VDA (Valid Diverse Assistance): An Instructional Intervention for Learners Under Program Power it Up

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ABSTRACT

This study was conducted to assess the effectiveness of Project VDA (Valid Diverse Assistance) as an instructional intervention for Grade two learners who were identified with the least mastered competencies in Mathematics based on Learning Outcome Assessment (LOA) result and enrolled under Program Power It Up during the school year 2021-2022.

The researcher utilized the quasi-experimental design using the pretest and posttest methods. One hundred percent of the learners from grade two who were enrolled in the Power It Up Intervention program in Mathematics were selected as participants.

The participants were subjected to pretest and post-test every quarter for four quarters to determine their academic performances. The action research project was conducted over five months, from July to December 2022.

The teacher advisers of grade two were the ones who implemented the intervention activities to the learners enrolled in Mathematics under the Program Power It Up. The intervention program included in the project is Individualized Instruction, Peer Support Program, and Reward Scheme. The researchers monitored the implementation of the project.

The data gathered was analyzed statistically to answer the questions proposed in the research work. Frequency count, percentages, mean, standard deviation, and paired sample t-test were used to statistically analyze the data.

The study came up with the following findings: There was a significant difference in the level of academic performance of the learners before and after the implementation of the intervention program. Higher mean was observed from the learners after the implementation of the intervention activities.

The intervention program Project VDA was effective in improving the mathematics academic performance of grade two learners based on the mean gain scores in the post-tests.

Based on the outcomes and implications of the study, the following are recommended, the continuous implementation of the intervention program for mastery of competencies to improve the academic performance of the learners. SLAC should be conducted regarding implementation of the intervention activities in teaching for mastery of least mastered competencies in other learning areas; A similar study may be conducted in other subject areas and grade levels using the implemented intervention program.

CHAPTER ONE

THE PROBLEM AND ITS BACKGROUND

The DepEd Cavite CID Technical Assistance Manual (2021) states that education is evolving more quickly than ever. In order to "go beyond" classrooms for a new generation of technologically savvy learners, formal education has evolved from being set up in the four corners of the classroom and constrained by a single teaching approach. Additionally, 21st-century education uses multiple intelligences to develop abilities like communication, cooperation, critical thinking, and creativity rather than just incorporating technology into the classroom.

A learning intervention called Project VDA (Valid Diverse Assistance) is created for students in grades 1-6 who have been identified as having the least mastered competencies based on the results of the Learning Outcome Assessment (LOA). As required by DepEd in all subject areas, this instructional intervention offers targeted basic skills education. Intervention programs are employed to close gaps in fundamental abilities. Most programs concentrate on weak areas in math, reading, and writing. The goal of this program is to close the knowledge gap between learners and what they were supposed to know. (<https://www.understood.org/en/learning-attention-issues/sign-symptoms/age-by-age-learning-skills/learning-skills-for-different-ages>)

Each student differs from the others in terms of learning styles, academic performance, classroom learning, and academic standards. The goal of Project VDA is to offer learning support to students who perform significantly worse in school than their peers. Teachers can provide learning activities and hands-on experiences to students in accordance with their skills and requirements by adapting school curricula and teaching methods. Additionally, they can create personalised learning plans with strong remedial assistance for students to help them consolidate their fundamental understanding of various courses, master various learning techniques, build confidence, and improve the efficiency of learning.

The development of students' general abilities, such as those related to interpersonal interactions, communication, problem-solving, self-management, self-learning, independent thinking, creativity, and the use of technology, takes place throughout the educational process. Such instruction can create the groundwork for students' lifelong learning, aid in the development of positive attitudes and values, and get them ready for next coursework and careers.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

According to the DepEd Cavite CID Technical Assistance Manual (2021), Howard Garner's Multiple Intelligences has a workable and meaningful correlation for 21st-century education. No matter the subject matter, competencies, or objectives that are crucial for education for sustainable development and lifelong learning, its framework for human intelligence gives a practical, empirical model for addressing all learning routes.

Multiple Intelligences emphasize that learners have multiple types of intelligence rather than restricting learning to a certain methodology. The many intelligences include:

Language intelligence, or word smart, is concerned with the gift of language. With ease, a learner absorbs knowledge and successfully completes a task thanks to the power of language, whether spoken or written. Languages can be learned by the student.

A person with logical-mathematical intelligence is numerate and logical. Students are able to think logically, do mathematical operations, and conduct scientific investigations. Patterns, classifications, and correlations typically pique the curiosity of students with strong logical intelligence.

Image-savvy is spatial intelligence. Large-scale and fine-grained spatial pictures can be recognized and used by people with spatial intelligence.

Body clever refers to bodily-kinesthetic intelligence. Learning uses the entire body or specific parts to solve issues. People with bodily-kinesthetic intelligence can unite their minds and bodies to use their bodies to produce things, complete tasks, or solve issues.

Music intelligence is music knowledge. Learners make reference to abilities in musical composition, performance, and pattern recognition. Pitch, rhythm, timbre, and tone can be recognized and produced by those with musical intelligence.

People smart is interpersonal intelligence. Understanding intents is a trait of interpersonal intelligence. other people's motivations and aspirations, and ultimately how to collaborate well with others. The students are able to identify and comprehend the feelings, goals, intentions, and motives of others.

Intelligent within oneself, intrapersonal intelligence. It is the ability to comprehend oneself, to have a useful working model of oneself that includes one's wants, anxieties, and capacities, and to effectively use such information in governing one's own life. The learner is able to identify and comprehend his or her feelings, wants, objectives, and motives.

Nature is intelligent in a naturalistic sense. Naturalistic intelligence entails knowledge of how to identify and categorize the various species in one's surroundings. Students are able to recognize and differentiate between various kinds of plants, animals, and weather formations that can be found in the natural world.

These are the driving forces behind the POWER IT UP program of DepEd Cavite. The program provides a venue for students to showcase their learning and talents as well as for teachers to maximize their potentials.

The Program POWER IT UP, also known as Proactive Optimization of Wide-ranging Experiential and Rationalized Instruction Toward Upgraded Potentials, is one of the DepEd Division of Cavite's flagship initiatives. By giving all students relevant learning opportunities in the form of intervention, remediation, and enrichment programs across all subject areas, this program aims to maximize their potential as learners. (DepEd Technical Assistance Manual for Cavite CID)

The POWER IT UP program is used in all subject areas with the goal of increasing, enhancing, or developing fundamental abilities such as problem-solving, communication, teamwork, literacy, numeracy, and the capacity to read and follow instructions—all of which are necessary for trainability across the curriculum.

Streamlined based on the rests of the Learning Outcomes Assessment (LOA), POWER IT UP caters to all types of learners: 1) intervention and/or remediation activities for struggling learners, and 2) enrichment and enhancement programs in various fields of interest (e.g. journalism, sports, STEM, TechVoc, etc.) for both regular and gifted learners.

Through intervention and remediation activities, the program POWER IT UP closes the learning gaps for kids who are falling behind while also improving their academic performance.

Reteaching the competencies to pupils who did not learn them is referred to as intervention and remediation. They share the same underlying objective of providing concentrated learning opportunities for disadvantaged kids in order to help them succeed academically. (Blog at Edmentum, October 2020)

The goal of the POWER IT UP program is to raise students' performance levels. In particular, it aims to enhance students' academic performance by developing transformative co-curricular activities, fostering the development of literacy and numeracy skills and attitudes for lifelong learning in Filipino students, and ensuring the students' full learning potential in all subject areas.

Cotton, 1988, as cited in the Journal of Education and Learning, suggests the following guidelines for assisting students with learning challenges:

To ensure that students learn effectively, teachers must recognize the various learning requirements of their students and create lesson plans that are appropriate for those needs.

Teachers must design various learning activities with the same teaching purpose to foster students' diverse talents and problem-solving skills since students exhibit distinct learning characteristics. Since students can learn the necessary knowledge and abilities through a variety of activities, it is more effective for teachers to use a sequence of pertinent and straightforward teaching activities rather than assigning one lengthy teaching activity.

In order to provide students with individualized learning experiences and to pique their interest and initiative in learning, teachers deliberately create relevant learning contexts, linguistic environments, games, or activities.

Before moving on to abstract ideas, teachers provide tangible examples while moving at a pace appropriate for the students' learning capacities. To help students understand concepts through frequent, meaningful examples, teachers might approach the teaching of new ideas from a variety of angles. By utilizing instructional aids, games, and activities more frequently, they should encourage students to actively participate in class. To aid students in understanding the key concepts, they can also employ information technology and all the educational materials accessible.

Students that struggle with learning are less adept at understanding written language. Therefore, in order to minimize confusion, teachers should provide pupils concise instructions. Each learning activity's layout must be explained in detail. To ensure that every student understands the instructions and can benefit from the technology and educational materials available to them, teachers may, if required, ask students to repeat the steps of an activity.

To improve students' audio and visual recollections, teachers should always summarize their essential ideas and put the relevant phrases on the board throughout class. To improve the efficacy of learning, teachers can help their students make connections between the material they learn in class and their real-world experiences. In addition, encouraging students to restate the key ideas in writing or verbally is another excellent learning strategy.

Students with learning disabilities may eventually lose interest in learning if they experience repeated frustrations with their assignments. As a result, educators should modify the curriculum to accommodate students' requirements. Teachers can create engaging activities and a reward system with fewer students in the program to pique students' attention. Helping students overcome their learning challenges is crucial if they are to feel successful, regain their confidence, and rekindle their enthusiasm in studying.

Students that struggle with learning typically lack confidence and behave more passively in class. They seldom ever voice their opinions or ask questions. Inactive class participation should be patiently encouraged by remedial teachers. Positive educational experiences may increase students' motivation to learn.

The dissemination of knowledge shouldn't be the main goal of instruction. It's also critical to note how much the entire learning process benefits the students. Teachers should provide students plenty of chances in class to put what they have learned into practice, reflect on it, and come up with creative solutions to issues. Additionally, they should pay close attention to how students do and provide them with the necessary support, criticism, and encouragement so that they can learn how to handle difficulties, build confidence in themselves, and improve their learning abilities.

Teachers should closely monitor each student's progress in class because students may have a variety of difficulties while learning. They should offer individualized remedial instruction whenever necessary, either before or after class, during a break, or at lunch, to help students overcome any learning hurdles as soon as feasible. When grading assignments, teachers must to keep track of the frequent mistakes made by students and quickly impart the right ideas and information to them.

The goal of any teaching-learning activity in a classroom under the formal educational framework is to educate the students. Unfortunately, not all kids can handle these learning processes, which can lead to a range of unpredictable outcomes. In light of this, educators must come up with an intervention plan to make sure that these students do not fall behind while still retaining the skills being taught. Reteaching the competencies to students who did not learn them is referred to as intervention and remediation particularly. These intervention and remediation exercises were made available to students who were below mastery level and did not meet the requirements to pass a particular summative evaluation. As a result, they have the same underlying objective: to provide concentrated learning opportunities for struggling kids in order to help them succeed academically. However, it is important to highlight those approaches to intervention tactics may differ depending on the students, settings, and the teacher themselves (Edmentum blog, October 2020).

Teachers should also create appropriate learning activities that align with their lesson plans. Teachers should encourage students to actively participate in the learning process so that they may grasp the techniques and strategies of collaborative learning by using modest starting points, short increments, a variety of activities, and immediate feedback.

Situational teaching, competitions, information gathering, oral reporting, games, topical research, production of graphs/figures/models, role playing, recording, visits, and experiments are just a few examples of the varied teaching activities that can help students increase their interest in learning, stimulate their thinking, and improve the effectiveness of instruction.

The intervention process starts with the definition of the outcome or learning competencies that the pupils are expected to know and do at the end of the intervention program. Following that is the planning, which is essential for an intervention to be successful. It takes into account the scale, scope, and target learners while deciding on the resources and individual strategy to be applied. As previously mentioned, the intervention process involves a low starting point with small steps, which is an effective way to test the intervention strategy and identify what works and what does not. After determining which strategy is effective, it is time to scale up the intervention. Major factors must be considered such as the time of pupils and teachers, managing cost, and room allocation. After the intervention program has been scaled up, it is necessary to ensure that progress is routinely observed, and that feedback is delivered on time. Since every child is different, what works for one student might not be effective for another. It is important to continuously monitor each student's progress toward the targeted objective of the intervention. Lastly, sharing of best practices like effective instructional intervention must be done since it can serve as a help to others and provide feedback from other professionals all for continuous improvements.

Peer tutoring, remedial instruction, the Math-Saturday Program, the Home-based Module Utilization Approach, after-class enrichment activities, and long-term school to school collaboration through the SBM instructional dimension project are just a few of the activities that Program POWER IT UP supports. It also acknowledges the variability of the students in the classroom and the need for diverse methods of gauging their varying capacities for learning.

Students are encouraged to study mathematics because it is one of the most significant disciplines in Asia (Leatham & Peterson, 2010; Ronis, 2008). From this perspective, the majority of Asian nations employ far more aggressive directing methods for children's mathematics accomplishments (Wei & Dzung, 2014).

In the Philippines, mathematics is a general education subject taught in both primary and higher education. According to the K–12 Basic Education Curriculum, students should understand and appreciate the principles of mathematics as they apply them to problem-solving, critical thinking, communicating, reasoning, making connections, representing ideas, and making decisions in daily life.

Blomeke and Delaney (2014) claim that because it is crucial, practically every discipline need it as a subject. However, issues with arithmetic proficiency continue to exist, not just in the Philippine context but also now in other nations.

According to Bob Wright, pupils who are having difficulty in math may benefit from early interventions designed to boost that skill and ultimately avert failure. Without a doubt, the child's first three years of school (K-2) have a big impact on the rest of their math education because this is when they first encounter success or failure, enthusiasm or boredom, challenge or frustration. Furthermore, there are noticeable changes in children's abilities, enthusiasm for, and beliefs about mathematics by the conclusion of the first three years in school. As a result, research on mathematics in the lower primary years is still crucial.

It is widely endorsed in reading and is gaining interest in mathematics to prevent learning problems by identifying students who are at risk for academic difficulties and offering evidence-based multitiered intervention at an early age. (2005) Fuchs et al.

However, students have a variety of specific difficulties in Mathematics, necessitating a broad range of interventions like the Project VDA (Valid Diverse Assistance) where appropriate intervention can be provided to the straggling pupils.

No child should ever be left behind. By this, appropriate and suitable instructional interventions to address individual needs must be provided particularly on Mathematics, which is the primary subject concern of this study. Thus, the utmost objective of this study is to assess the effectiveness of Project VDA (Valid Diverse Assistance), an instructional intervention program for grade two learners under Program Power It Up Mathematics during the school year 2021-2022.

CHAPTER THREE

INNOVATION, INTERVENTION AND STRATEGY

A learning intervention program called Project VDA (Valid Diverse Assistance) is created for students in grades 1-6 who have been recognized as having the least mastered competencies based on the results of the Learning Outcome Assessment (LOA). As required by DepEd in all subject areas, this instructional intervention offers targeted basic skills education. The goal of Project VDA is to offer learning support to students who perform significantly worse in school than their peers. The study includes three intervention methods, including Individualized Instruction, Peer Support program and Reward Scheme.

a. Customized Instruction. Individualized Instruction, which is tailored to the learning requirements of specific students, strives to strengthen the learning foundation, assist students in overcoming learning challenges, and help students reach their full potential. To guarantee that the program is implemented successfully, individualized instruction should contain short-term and long-term teaching objectives, learning phases, exercises, and reviews. This exercise includes the provided learning activity sheets, explanatory videos, and reading materials.

b. Peer Support. Remedial teachers may prepare students who excel in a particular topic to serve as "little teachers" who will assist classmates who struggle with learning in group lessons, independent study sessions, and outside of class. Students that participate in peer support programs learn new information, improve their interpersonal relationships and communication and teamwork abilities. Siblings, cousins, and other family members can offer peer support to students who are currently studying at home.

c. Reward Scheme. The reward system has a beneficial impact on increasing students' motivation. It seeks to help students develop goals and plans and to positively reinforce their excellent work.

Praise (And Other Verbal Reinforcement) - for accurate assignments, successful exam results, and correct comments during class discussions.

Gold stars, having one's photo posted on a bulletin board or their name in a newsletter, etc., are examples of symbolic rewards.

Token Rewards are worthless in and of themselves but can be redeemed for valuable items, such as points or chips.

Tangible Rewards - such as food, games, or supplies for the classroom (pencils, notebooks, etc.) This activity will be carried out as part of the school's Kalinga Program.

CHAPTER FOUR

ACTION RESEARCH QUESTIONS

This research was done to determine how effective of Project VDA (Valid Diverse Assistance) as an instructional intervention for Grade two learners who were identified with the least mastered competencies in Mathematics based on Learning Outcome Assessment (LOA) result and enrolled under Program Power It Up during the school year 2021-2022.

Specifically, it attempts to answer the following questions:

- What is the level of academic performance of the learners in Mathematics based on LOA results before the implementation of the intervention program?
- What is the level of academic performance of the learners in Mathematics based on LOA results after the implementation of the intervention program?
- Is there a significant difference that exists between the level of academic performance of the learners in Mathematics before and after the implementation of the implementation program?

CHAPTER FIVE

ACTION RESEARCH METHODS

A. Participants and/or Other Sources of Data and Information

This study focused on the assessment of the effectiveness of Project VDA (Valid Diverse Assistance), an instructional intervention program in Mathematics for Grade 2 learners under Program Power It Up of Sapang Elementary School, during the school year 2021-2022.

100% of learners from grade 2 who were enrolled in the POWER IT UP Intervention program in Mathematics from the first to fourth quarter were selected as respondents.

Before and after the intervention, the respondents were given the same set of 15-item tests in Mathematics. These test questionnaires were a division-wide diagnostic and achievement test given every quarter.

Table 1: List of respondents per quarter

Grade & Section	1 st quarter	2 nd quarter	3 rd quarter	4 th quarter
2- Mahusay	32	27	27	26
2- Maliksi	33	33	31	23
2- Mahinahon	27	27	27	20
2- Magiting	30	30	27	19
2- Matulungin	29	25	28	22
2- Malikhain	26	24	21	19
TOTAL	177	166	161	129

B. Data Gathering Method

The District Supervisor of Ternate, where the school is located, was given a letter requesting permission to carry out the study. Following permission, the researchers made plans to collect the data with the LOA Coordinator. The researcher did this on his or her own time. Intervention actions through Project VDA were implemented to the learners right away within the allotted period after receiving the LOA results. The implementation of the intervention activities was handled by the adviser for each grade level, who was also closely watched by the researchers.

Each quarter the gathered data was tabulated and analyzed to determine the effectiveness of the program.

This action research project was conducted over five months, from July 2022 through December 2022.

For the academic performance of the respondents, the data was collected from the teacher. Data collected were analyzed and interpreted.

C. Ethical issues

The welfare of the respondents must be guaranteed by the researcher. Due to the fact that the respondents are minors, the researchers must obtain a letter of agreement from each parent before allowing their kid to take part in the study. The students were made fully aware of the purpose of the questionnaire. The researcher's expectations from them and their expectations from the researchers were discussed before to the study's execution.

The researchers made sure that no identifying information about each respondent was given in order to maintain the anonymity and confidentiality of the data.

D. Data Analysis Plan

To find statistically sound answers to the questions given in the study work, the data collected were evaluated. The data were statistically analyzed using frequency count, mean, standard deviation, percentages, and paired sample t-test.

CHAPTER SIX

DISCUSSION OF RESULTS AND REFLECTION

A. Problem No. 1:

What is the level of academic performance of the learners in Mathematics based on LOA results before the implementation of the intervention program?

Table 2: Results of Diagnostic Test as the Pre-test of Grade 2 pupils in Mathematics for Quarter 1

Grade Two	Number of Learners	Number of Learners enrolled in the program	Mean	SD	MPS	Learning Level
Mahusay	33	32	7.16	2.14	47.71%	Moving Towards Mastery
Maliksi	33	33	6.64	2.43	44.24%	Moving Towards Mastery
Mahinahon	30	27	8.15	1.84	54.32%	Moving Towards Mastery
Magiting	30	30	7.27	1.81	48.45%	Moving Towards Mastery
Matulungin	33	29	7.21	1.73	48.05%	Moving Towards Mastery
Malikhain	28	26	8.08	2.07	53.85%	Moving Towards Mastery
TOTAL	187	177	7.42	2.10	49.44%	Moving Towards Mastery

Table 2 shows the result of the Diagnostic Test taken by 187 pupils to know their learning level in Mathematics for the first quarter. The weighted mean of 7.42, the standard deviation of 2.10, and an MPS or mean percentage score of 49.44% among 6 sections indicate that the grade 2 students' learning level was moving toward mastery. Out of 187 pupils, 177 were enrolled in the Power It Up program and served as respondents of Project VDA for the first quarter.

Table 3: Results of Diagnostic Test as the Pre-test of Grade 2 pupils in Mathematics for Quarter 2

Grade Two	Number of Learners	Number of Learners enrolled in the program	Mean	SD	MPS	Learning Level
Mahusay	33	27	8.44	1.75	56.30%	Moving Towards Mastery
Maliksi	33	33	7.21	2.40	48.08%	Moving Towards Mastery
Mahinahon	30	27	7.33	2.19	48.89%	Moving Towards Mastery
Magiting	30	30	7.40	2.04	49.33%	Moving Towards Mastery
Matulungin	33	25	6.96	1.90	46.39%	Moving Towards Mastery
Malikhain	28	24	8.50	1.80	56.67%	Moving Towards Mastery
TOTAL	187	166	7.64	2.13	50.94%	Moving Towards Mastery

Table 3 shows the result of the Diagnostic Test taken by 187 pupils to know their learning level in Mathematics for the second quarter. The weighted mean of 7.64, a standard deviation of 2.13, and an MPS or mean percentage score of 50.94% among 6 sections indicate that the grade 2 students' learning level was moving toward mastery. Out of 187 pupils, 166 were enrolled in the Power It Up program and served as respondents of Project VDA for the second quarter.

Table 4: Results of Diagnostic Test as the Pre-test of Grade 2 pupils in Mathematics for Quarter 3

Grade Two	Number of Learners	Number of Learners enrolled in the program	Mean	SD	MPS	Learning Level
Mahusay	33	27	8.04	1.64	53.58%	Moving Towards Mastery
Maliksi	33	31	7.58	2.24	50.32%	Moving Towards Mastery
Mahinahon	30	27	8.15	1.84	54.32%	Moving Towards Mastery
Magiting	30	27	7.33	2.19	48.89%	Moving Towards Mastery
Matulungin	33	28	7.71	1.91	51.43%	Moving Towards Mastery
Malikhain	28	21	8.24	1.38	54.92%	Moving Towards Mastery
TOTAL	187	161	7.84	1.94	52.24%	Moving Towards Mastery

Table 4 shows the result of the Diagnostic Test taken by 187 respondents to know their learning level in Mathematics for the third quarter. The weighted mean of 7.84, the standard deviation of 1.94, and an MPS or mean percentage score of 52.24% among 6 sections indicate that the grade 2 students' learning level was moving toward mastery. Out of 187 pupils, 161 were enrolled in the Power It Up program and served as respondents of Project VDA for the third quarter.

Table 5: Results of Diagnostic Test as the Pre-test of Grade 2 pupils in Mathematics for Quarter 4

Grade Two	Number of Learners	Number of Learners enrolled in the program	Mean	SD	MPS	Learning Level
Mahusay	33	26	8.77	1.76	58.46%	Moving Towards Mastery
Maliksi	33	23	7.39	1.58	49.28%	Moving Towards Mastery
Mahinahon	30	20	7.90	1.48	52.67%	Moving Towards Mastery
Magiting	30	19	8.26	1.58	55.09%	Moving Towards Mastery
Matulungin	33	22	7.91	1.88	52.73%	Moving Towards Mastery
Malikhain	28	19	7.95	1.64	52.98%	Moving Towards Mastery
TOTAL	187	129	8.03	1.72	53.53%	Moving Towards Mastery

Table 5 shows the result of the Diagnostic Test taken by 187 respondents to know their learning level in Mathematics for the fourth quarter. The weighted mean of 8.03, the standard deviation of 1.72, and an MPS or mean percentage score of 53.53% among 6 sections indicate that the grade 2 students' learning level was moving toward mastery. Out of 187 pupils, 129 were enrolled in the Power It Up program and served as respondents of Project VDA for the fourth quarter.

Table 6: Summary of the Pretest on the level of academic performance of the pupils in Mathematics

MEAN	SD	MPS	Learning Level
7.73	1.97	51.54	Closely Approximating Mastery

Table 6 shows the results of the pretest, which was administered to respondents between the first and fourth quarters to gauge their academic achievement in mathematics, are summarized in Table 6. The students took an exam with 15 items. According to the statistics, there was a mean score of 7.73, a standard deviation of 1.97, and a mastery proficiency score (MPS) of 51.54%, which is very close to mastery.

B. Problem No. 2:

What is the level of academic performance of the learners in Mathematics based on LOA results after the implementation of the intervention program?

Table 7: Results of Achievement Test as the Post-test of Grade 2 pupils in Mathematics for Quarter 1

Grade Two	Number of Learners	Number of Learners who Completed the program	Mean	SD	MPS	Learning Level
Mahusay	32	32	14.22	0.82	94.79%	Mastered
Maliksi	33	33	13.91	1.11	92.73%	Mastered
Mahinahon	27	27	14.00	1.25	93.33%	Mastered
Magiting	30	30	14.13	0.88	94.22%	Mastered
Matulungin	29	29	13.79	1.21	91.95%	Mastered
Malikhain	26	26	13.60	0.98	90.67%	Mastered
TOTAL	177	177	13.94	1.07	92.95%	Mastered

Table 7 shows the result of the Achievement test conducted to 177 respondents to know the learning level after the implementation of Project VDA (Valid Diverse Assistance) for the first quarter. The weighted mean of 13.94, the standard deviation of 1.07, and an MPS or mean percentage score of 92.95% and that the pupils' learning level in Mathematics for first icate quarter has improved as seen by mastered learning level.

Table 8: Results of Achievement Test as the Post-test of Grade 2 pupils in Mathematics for Quarter 2

Grade Two	Number of Learners	Number of Learners who Completed the program	Mean	SD	MPS	Learning Level
Mahusay	27	27	14.19	0.98	94.57%	Mastered
Maliksi	33	33	13.88	1.15	92.52%	Mastered
Mahinahon	27	27	13.11	1.71	87.41%	Mastered
Magiting	30	30	14.10	1.08	94.00%	Mastered
Matulungin	25	25	13.55	1.54	90.30%	Mastered
Malikhain	24	24	13.44	1.50	89.60%	Mastered
TOTAL	166	166	13.71	1.40	91.40%	Mastered

Table 8 shows the result of the Achievement test conducted to 166 respondents to know the learning level after the implementation of Project VDA (Valid Diverse Assistance) for the second quarter. The weighted mean of 13.71, the standard deviation of 1.40, and an MPS or mean percentage score of 91.40% indicate that the pupils' learning level in Mathematics for the second quarter has improved as seen by mastered learning level.

Table 9: Results of Achievement Test as the Post-test of Grade 2 pupils in Mathematics for Quarter 3

Quarter 3 Achievement Test Result in Mathematics						
Grade Two	Number of Learners	Number of Learners who Completed the program	Mean	SD	MPS	Learning Level
Mahusay	27	27	14.11	1.10	94.07%	Mastered
Maliksi	31	31	13.61	1.36	90.75%	Mastered
Mahinahon	27	27	13.44	0.92	89.63%	Mastered
Magiting	27	27	13.41	1.52	89.38%	Mastered
Matulungin	28	28	13.43	1.24	89.52%	Mastered
Malikhain	21	21	13.81	0.73	92.06%	Mastered
TOTAL	161	161	13.64	1.22	90.90%	Mastered

Table 9 shows the result of the Achievement test conducted to 161 respondents to know the learning level after the implementation of Project VDA (Valid Diverse Assistance) for the third quarter. The weighted mean of 13.64, the standard deviation of 1.22, and total MPS or mean percentage score of 90.90% indicate that the pupils' learning level in Mathematics for the third quarter has improved as seen by mastered learning level.

Table 10: Results of Achievement Test as the Post-test of Grade 2 pupils in Mathematics for Quarter 4

Quarter 3 Achievement Test Result in Mathematics						
Grade Two	Number of Learners	Number of Learners who Completed the program	Mean	SD	MPS	Learning Level
Mahusay	26	26	13.38	1.00	89.23%	Mastered
Maliksi	23	23	12.78	1.79	85.22%	Mastered
Mahinahon	20	20	12.80	1.08	85.33%	Mastered
Magiting	19	19	12.63	0.93	84.21%	Mastered
Matulungin	22	22	12.45	1.62	83.03%	Mastered
Malikhain	19	19	12.95	1.10	86.32%	Mastered
TOTAL	129	129	12.83	1.34	85.56%	Mastered

Table 10 shows the result of the Achievement test conducted to 129 respondents to know the learning level after the implementation of Project VDA (Valid Diverse Assistance) for the fourth quarter. The weighted mean of 12.83, the standard deviation of 1.34, and total MPS or mean percentage score of 85.56% indicate that the pupils' learning level in Mathematics for the fourth quarter has improved as seen by mastered learning level.

Table 11: Summary of the posttest on the level of academic performance of the pupils in Mathematics

MEAN	SD	MPS	Learning Level
13.53	1.26	90.20	Mastered

Table 11 shows the summary of the posttest conducted from the first quarter to the fourth quarter to know the level of academic performance of the respondents in Mathematics. The same set of tests was given to the pupils. The data shows that there was a mean of 13.53, a standard deviation of 1.26, and an MPS of 90.20% which is under mastered learning level.

C. Problem No. 3:

Is there a significant difference that exists between the level of academic performance of the learners in Mathematics before and after the implementation of the intervention program?

Table 12: Results of the significant difference of Pre-Test and Post-Test on the level of academic performance of the pupils

MEAN PRE-TEST	MEAN POST-TEST	Difference	t -value	Level of Significance
51.54	90.20	6.71	-21.11388	Significant

The t-value is -21.11388. The p-value is < .00001. The result is significant at $p < .05$.

After Project VDA (Valid Diverse Assistance) intervention activity was applied in math instruction for grade 2, Table 12 displayed clear outcomes. Posttest findings showed a notable improvement in academic performance. (90.20%). Results from posttests showed that students who participated in intervention activities through Project VDA (Valid Diverse Assistance) improved much more in their academic performance. On the least mastered competencies, they advanced in mastery.

Project VDA (Valid Diverse Assistance) was effective in improving the academic performance of grade 2 pupils in Mathematics based on the mean gain scores in the posttests. There was a significant difference in the level of academic performance of the learners before and after the implementation of the intervention program. Higher mean was observed from the learners after the implementation of the intervention activities. The assessment of project VDA (Valid Diverse Assistance) as an instructional intervention program for grade two learners under Program Power It Up, particularly in Mathematics, will benefit primarily grade two pupils and teachers.

Based on the findings and ramifications of the study, it is advised to continue implementing the intervention program for competency mastering to raise learners' academic performance. A similar study could be carried out employing the implemented intervention program in other subject areas and grade levels. SLAC should be undertaken about implementation of the intervention activities in teaching for mastery of least mastered competencies in other learning areas.

CHAPTER SEVEN**ACTION PLAN**

COMPONENTS	KEY IMPROVEMENTS	STRATEGIES	RESOURCES REQUIRED	PERSONS INVOLVE	TIME FRAME	EXPECTED OUTPUT
1. Pupil Development	Increase MPS in Math by 10%	Identify and target pupils with minimum growth (slow learners)	Performance Target Monitoring Chart, practice tests, Least Mastered Skills,	School head, MT, Math Coordinator Math Teachers	June-March 2021	Targets set in MPS are met.
		Set targets for pupil achievement (by the end of each grading period)				Reported pupil's achievement
		Conduct on-the-spot tests				Pupils' test performances were measured.
		Continuous implementation of intervention programs for slow learners	Pupils-at-risk and below minimum performance decreased.			
	Engage pupils in meaningful activities that stimulate learning.	Allow pupils to do hands-on activities to learn more	Activity sheets, others	School head, MT, Math Coordinator Math Teachers	Year-Round	Pupils' participation in Math programs increased.
						An increase in pupils' learning outcomes is evident.
2. Instructional Development	Upgrade the competencies of teachers in terms of instructional skills	Conduct School Learning Action Cell (SLAC) for proper utilization of the intervention program	References, slide decks, photocopies of materials	School head and Teachers	Year-Round	Teachers had improved their competencies in terms of instructional skills


3. Curriculum Development	Ensure the implementation of Intervention programs in all grade levels	Modify Localized & Contextualized Teacher's Guide and Learner's Manual by incorporating Intervention activities in teaching and learning	WHLP, activity sheets	School head and Teachers	Year-Round	Teachers had implemented the utilization of Project VDA (Valid Diverse Assistance) in all grade levels
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DECLARATION OF ORIGINALITY, ANTI-PLAGIARISM, AND ABSENCE OF CONFLICT OF INTEREST

1. I, **Verna D. Ambat**, understand that plagiarism is an act of taking and using another's ideas and works and passing them off as one's own. This includes explicitly copying the whole work of another person or using some parts of their work without proper acknowledgment and referencing.
2. I hereby attest to the originality of this research proposal and have cited properly all the references used. I further commit that all deliverables and the final research study emanating from this proposal shall be of original content. I shall use appropriate citations in referencing other works from various sources.
3. I understand that a violation of this declaration and commitment shall be subject to consequences and shall be dealt with accordingly by the Department of Education.

Proponent: VERNA D. AMBAT
Signature: 
Date: December 17, 2022