THREE-MINUTE HABIT: CONCRETE PICTORIAL ABSTRACT (CPA) VIDEOS IN MATHEMATICS FOR DISTANCE LEARNING

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ABSTRACT

The Department of Education commits to providing quality education in the new normal delivery of learning. To materialize this thrust, Matti Elementary School adopted modular distance learning to provide learning continuity and make learning accessible to all learners. Learning activity sheets were distributed to learners yet children returned unaccomplished exercises, especially in Mathematics 6. Hence, action research was used to address the issue and explore the modular experiences of children. The three-minute habit was employed as a strategy to help the 10 passive learners improve their performance in Math. This technique utilized instructional videos focusing on Concrete, Pictorial, and Abstract (CPA) schemes to enhance the problem-solving skills of struggling participants. These key informants were purposely chosen to receive the video clips for 9 weeks in the third quarter, School Year 2021-2022. They also participated in the interviews. Responses were recorded and analyzed to create ideas. For the question of how CPA using three-minute instructional videos improve learners' problem-solving skills, the following themes emerged: localizing video lessons, modeling Math skills, simplifying targets, demonstrating abstracts, developing a positive attitude towards computation, and enhancing critical thinking skills.

Keywords: problem-solving, concrete, pictorial, abstract, videos, distance learning

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I. Context and Rationale

Problem-solving skill is one of the common problems that our students need to master. However, data in Southeast Asia Primary Learning Metrics (SEA-PLM) indicated that only 17% of the fifth-grade learner in the Philippines can perform within the average level in terms of problem-solving skills in Mathematics. The National Achievement Test also pointed out that the mathematical ability of the learners falls below than the expected level. For the third straight year, the national average mean percentage score (MPS) in the Grade 6 test of the National Achievement Test (NAT) continued its downward trajectory at 37.44, the weakest performance ever in the history of the standardized examination of the Department of Education (DepEd). Mathematics is one of the subjects taken in this examination.

In the Philippines, schools at all levels addressed these concerns and carefully evaluated plans and procedures on the implementation of the new scheme. The education sector is highly affected by the COVID-19 pandemic. The Department of Education ensures that learning never stops. It should continue despite the threat caused by the crisis. The department commits to deliver quality education, accessible and relevant in line with Sulong Edukalidad Program (DO 21 s.2019). It implements the Learning Continuity Plan, a package of interventions that responds to basic education challenges brought about by COVID-19.

This issue is evident in the daily classes of the subject in my school spearheaded where my teachers explore various strategy to address this problem. The problem on low mastery in Math has aggravated during the pandemic in our

learners. The new normal education posted burdens to our learners under modular learning modality. Our learners expressed difficulty in dealing with numbers. Thus, competencies including numerical competence is not mastered among our learners which making this a huge challenge among my teachers in Matti Elementary School.

In this regard, schools look for initiative to bridge the learning gap as well our school where I am the head. Basically, this is but answering our children's struggle on mathematical ability, from their basic computation to critical thinking. In the context of our beloved Matti Elementary School, innovation to solve this issue is designed as a modest way as an attempt to solve the problem through production of video materials. To note, videos are increasingly a common feature in teaching and learning as well as in the wider academic domain (Cooper, Higgins, & Beckmann, 2017). From the point of view of Shank (2019), shorter videos are more engaging than longer videos, thus the produced video materials are anchored on this premise.

In the new normal education, to strategize the learning opportunity is a priority. Consequently, DepEd Digos City is utilizing teacher- made Learning Activity Sheets. These are used by our learners of Matti Elementary School. The school embraces modular distance learning, yet the scheme did not guarantee maximum participation from our children, leaving the competency tagged as low mastery among our learners. In this situation, our learners confessed the need to have a teacher figure to explain the process of solving problems. These 10 learners have difficulty dealing with Math tasks. They are reluctant to do Math activities. This is shown in the Learning Activity Sheets they submitted since the School Year 2021-2022 began.

Thus, finding another platform is one of my recourse as the school head to effectively deliver Mathematics 6 competencies to these 10 learners who lagged behind. Short videos were sent to aid learners with their parents to understand the activities provided in the self-learning modules and worksheets. The teacher-made instructional videos provide CPA (Concrete-Pictorial-Abstract) approaches that last for 3-minute only. These are simplified instructions utilizing materials and real objects in the household. Presentations are made easier and shorter to make learning interactive and concrete.

II. RESEARCH QUESTION

My action research aimed to find out the effect of Concrete Pictorial Abstract educational videos as tool in improving learners' mathematical skills. Specifically, it sought to answer this question:

1. How does CPA (Concrete-Pictorial-Abstract) three-minute instructional video improve learners' problem-solving skills?

III. INTERVENTION

My action research utilized three-minute instructional videos which were teacher-made. The Most Essential Learning Competencies (MELC) in the third quarter were carefully followed for lesson planning in order to create video instructions. Presentations ranged from visualizing solid figures, patterns, algebraic expressions and equations, calculating speed, distance and time, areas of composite figures to surface areas of solid figures. These lessons were presented with modification to achieve the simplest and easiest instruction. Video clips were sent to group chats of the parents and the learners. Three-minute habit was purposely designed to give access to learners with limited

internet connectivity – mobile data for example. The recording of the instructional videos was done prior to the distribution of worksheets or self-learning modules. Video presentation showcased 3 learning procedures.

First, it has the concrete presentation of the competency or topic where concrete objects were used in the delivery of instruction. Second, it has the pictorial presentation where drawing, rectangular blocks or units represent numbers. Finally, it has the abstract presentation where the algebraic solution is presented. CPA stands for its procedural outline to scaffold problem solving activities. The participants enjoyed the intervention for 9 weeks during the third quarter, school year 2021-2022. The videos were sent every Friday via group chat. Once the learner viewed the video lesson, they wrote "done" and gave their comment or question on the same platform. I assured them to entertain their questions and clarifications anytime of the day.

Using appropriate multi-media teaching resources is an essential point to establish an avenue of incorporating video clips to improve the learning process (Kay, 2012). The increased satisfaction levels of open and distance learners who use shorter, modular educational videos may be considered a point of enrichment for the learning outcomes of open and distance learning environments. Shorter videos increased learners' motivation and satisfaction in Science and Mathematics. They achieved a significantly higher percentage of involved students and their average grades increased (Hsin & Cigas, 2013). The Concrete Pictorial Abstract (CPA) approach, based on Bruner's conception of the enactive, iconic, and symbolic modes of representation is a well-known instructional heuristic advocated by the Singapore Ministry of Education since early 1980's. The theories of instruction by Bruner in his book *Toward a Theory of Instruction*

have undoubtedly bequeathed a rich legacy to generations of educators in the domain of learning and instruction (Leong, Ho & Cheng,2015). In the new normal journey of the participants, learning was facilitated not only by the activity sheets but also by the teacher-character in the videos.

IV. METHOD

a. Research Design

This study utilized action research design which is qualitative or exploratory in nature where the purposive sampling technique is used in choosing the key informants. Exploratory research are intended to help us learn more about a specific topic of interest. It can assist us in connecting ideas to grasp the foundation of my study without introducing any prior thoughts or preconceptions. Swedberg, R. (2020) posited that an exploratory research is an endeavor to discover something new and intriguing through working a study issue which is the soul of good action research.

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

The study used action research design which is exploratory in nature. This part described the participants or other sources of data information, data gathering methods applied, and the data analysis.

There were 10 identified participants involved in the research. They were all grade 6 pupils of Matti Elementary School, School Year 2021-2022. For ethical consideration, they were given pseudonyms to keep their identity and privacy. This undertaking utilized purposive sampling technique for the 10 key informants. The number of participants depends on the qualitative research approach, as such for phenomenology, 3-10 (Creswell, 2018). As to this research, the participants were chosen according to their scholastic performance in Mathematics. Also, they had computer gadgets which they can use to watch the video lessons at home.

The 10 participants were purposely chosen to experience the three-minute habit since they were classified as low performing learners based on their answers on their worksheets in Mathematics in the first quarter. They failed to answer their modular tasks. They were reluctant in their performance tasks and written works. Parents of these participants also expressed children's struggles in answering Mathematics activities. These parents too could not provide proper and correct discussion in Math in their respective roofs, as confessed. Moreover, participants also had access to messenger using the tablets under the division-initiated program, the Greening Education Project. Meanwhile, learners who performed fairly in Math were not included in this CPA journey.

c. Data Gathering Methods

Procedures were attentively kept to obtain the information needed on learners' journey in distance learning. Primarily, I secured consent from the participants and their parents. I conducted interview observing the standards and protocols. Finally, I transcribed the information gathered from interviews and casual talks.

To move forward, I gathered, recorded, and analyzed important details of the intervention before, during and after implementation. Data collected enabled me to decide and consider available information. Methodology and analytical approach determined the use of gathered information and explanation. Facts were of great help to carry out steps for the completion of the investigation. I observed the following stages to get the necessary data:

Pre-Implementation Stage

After identifying the participants, I informed the concerned parents and guardians through phone calls and group chats. I communicated with them about the implementation of short educational videos in Mathematics. To make sure of their support, I requested them to come to school to give them a thorough discussion of the conduct of the three-minute habit. Their cooperation was very vital in the entire journey. Further, I prepared the content of my video lesson. Concepts were aligned to the Math 6 Most Essential Learning Competencies (MELC) in the third quarter for 9 weeks. Each 3-minute video session focused on the demonstration of understanding of solid figures and sequence in forming rules, algebraic expressions and equations, calculating speed, time and distance.

During Implementation Stage

I recorded the 9-set videos showcasing CPA to give focus in facilitating their questions and clarifications during the implementation stage. For 9 weeks, video clips were the support materials. I distributed the worksheets through their parents or guardians every Friday and on the same day, three-minute videos were sent through group chats. Each video was titled based on the learning competency of the week. Learners watched the videos via group chat at their own pace. They could watch the video again and again or download if necessary. Once the learner had watched the video, he or she would write “done” in the group chat. Learners would post questions and clarifications based on the educational video. Then, they answered and submitted the activities in the worksheets. I gave feedback for improvement and encouragement. I monitored learners’ performance by checking the worksheets. I also asked feedback from them for improvement of videos.

Post Implementation Stage

It was good to note that the 10 participants were able to submit their Math learning activity sheets for the third quarter, complete and answered exercises. To gather the impact of the CPA, I used to have my journal to keep my records and observation regarding learners' experiences, feedback, and queries. I kept accounts of their questions and answers in the chat room. This was one way to track progress and to make improvement for the next videos. Everything was recorded to have direction and to take future action. I made casual talks with parents about the CPA during module distribution. Unstructured interviews were done to my key informants too.

d. Data Analysis Plan

This study employed action research design. Facts are important. Data were analyzed to identify the elements relating to importance and themes. Data from journal, observation, and transcribed interviews were coded to reduce attributions to the component elements of cause, outcome, and links between two. The intent was analyzing the data to establish common themes, patterns or ideas that could provide deeper understanding about instructional videos through CPA which bridged learning gaps. The weekly journal afforded number of videos sent and watched. This notebook also kept the significant feedback from parents and learners. It contained records of progress. All interviews were transcribed and analyzed as they were collected. It all summed up to thematic analysis. Interviews to learners were done through phone call, community outreach and a simple home visit.

In analyzing the data, I used the Thematic analysis as a method for analyzing qualitative data. I followed the steps proposed by Braun & Clarke (2006). The steps included not only describing data, but it also involves interpretation in the processes of selecting codes and constructing themes, searching across a data set to identify, analyze, and report repeated patterns.

V. DISCUSSION OF RESULTS AND REFLECTION

This chapter describes the results of the qualitative study through interviews and observations. The experiences and exposure of the participants to teacher-made video clips are valued, appreciated, and reckoned. Responses in verbatim are reflected in this part also. Themes are formulated to provide meaning to children's journey on embracing Mathematical challenges while fighting isolation during pandemic. Discussion is presented according to themes that emerged in the data analysis.

How does a CPA Three-Minute Instructional Video improve Learners' Problem- Solving Skills?

I interviewed the research informants about their struggles in learning the competency in Mathematics. These children confessed their difficulty performing Mathematics tasks on their activity sheets. We had to meet halfway to make learning happened. Addressing problem solving issues was a priority to bridge the gap. I crafted localized video clips to bring children closer to teacher instruction and modeled sequential details to give exact picture of Math concepts.

As reflected in Table 1, six themes emerged as ways to fix issues in teaching-learning Mathematics in the new normal learning. These are localizing video lessons, modelling Math skills, simplifying targets, demonstrating abstracts, developing positive attitude towards computation and enhancing critical thinking skills.

The interview generated themes for this research question. The themes included Localizing video lessons, Modelling Math Skills, Simplifying Targets, Demonstrating Abstracts, Developing Positive Attitude towards Computation, and Enhancing Critical Thinking Skills.

Table 1. Thematic Map on CPA Three-Minute Instructional Videos

First Theme: Localizing Video Lessons ● Locally crafted instructional design ● Teacher-character on video clips ● Short, comprehensive, and contextualized presentations
Second Theme: Modelling Math Skills ● Procedural discussions ● Clear Mathematical steps ● Teaching by showing real things
Third theme: Simplifying Targets ● Doable directions ● Contextualized examples ● Easy to follow instructions
Fourth Theme: Demonstrating Abstracts ● Unlocked Mathematical terms ● Scaffolded problems ● Identified operations ● Performed procedural solutions
Fifth Theme: Developing Positive Attitude towards Computation ● Happiness and excitement about Math ● Enthusiasm and eagerness to solve Math problems ● Motivation to learn new solutions ● Preparedness for the everyday undertaking ● Changed outlook ● Confidence in the learning gained
Sixth Theme: Enhancing Critical Thinking Skills ● Solved Math Problems ● Evaluated information offered ● Submitted answered activity sheets ● Improved Math grade ● Treated problems systematically

Localizing Video Lessons. I considered the indigenized teacher-made video lesson as tool for learning Mathematics. I used simple and inexpensive automated video equipment like cell phones and digital camera with movie settings. I secured a conducive shooting place at home and in local sights that best fit to the context of the lesson. Topics were explained in 3 minute-presentation, covering from introduction of competency, application using real objects, representation until abstract solution. Basically, I was the character in the videos to establish the real teacher connection to learners. Consequently, learners were so honest of liking the video class when they got to recognize me as instructor in the presentation. Happily, Daisy recalled:

> *"Si Sir Ed ang naa sa video. Nag lecture. Nag explain. Mubo ra ang pagdiscuss. Simple lang."* (Archive #104)
>
> It was Sir Ed who lectured and explained in the video. The discussion was short and simple.

The same expression of being amazed was shared by Francisco. He noted:

> *"Ganahan ko murag naa ko sa classroom. Tinuod ang teacher."* (Archive #201)
>
> I felt like I am in the classroom with the real
>
> teacher.

It is always my desire to give explanation to the simplest level. Video presentation was the very tool to reach out with the children in their temporary isolation. The video class is the starting point for children participation in critical thinking. It is effective and engaging that increased learner's interest in their

practical learning journey. In the report of International Data Corporation in 2019, a learner is likely to recall only 10% of textual content, 65% of visual content, but 95% of audio-visual content. Hence, this instructional strategy effectively boosts self-learning and engages learners' attention throughout short sessions. This is true that localized videos are more persuasive than other printed materials. Thus, it answers the different learning types of visual, auditory and kinesthetics participants.

Modelling Mathematics Skills. Struggling participants articulated the battle neck in solving word problem. They got stuck to the mathematical terms before identifying the operations to use. One process that I employed in critical thinking is the procedural discussion wherein clear steps of attacking problems are carefully followed. Drawing model is a concrete illustration of a simplified text command. This is a visual conversion of word to diagram and real object which provides vivid realities. Problems are explained in a manner of providing pictorial comprehension to create visual solutions. Children really liked explicit modelling for procedures were properly signaled. In our conversation, Eugenio and Rosal voiced:

> *"Maayu gani kay giisa isa ug pakita ang pamaagi. Kasubay ra ko ug maapas ra pod. Makasolve ko"* (Archive 202)
>
> A step-by-step presentation was good. I could follow, handle and solve problems.
>
> *"Kung naay drawing mas dali masabtan ang problem ug solution."* (Archive #103)
>
> Drawing really helped in understanding and finding solution to a problem.

Modelling in Mathematics is a must in the problem solving. Children need a specific template to follow for independent practice. Having model, be it in in

the form of teacher-character, thing or situation is having the confidence to put effort on challenges to get solved. Taplin (2007) specified modelling problems are real world concerns which required realistic predictions and assumptions and elaborated calculations that promote graders to use their knowledge and benefit from their experiences.

It was my intention to deliver learning easier and to make tasks simpler to learners. The teacher-made video clips made all these to realize the transfer of knowledge to struggling participants. In the context of this study, doable task is making Math activities attainable within the given time and resources. Demonstrating declarative concepts is arriving at algebraic solutions with independence from drawing guide and visual support. Comprehension comes first to get the next move.

Simplifying Targets. Contextualizing situations is making routine workable wherein activities intensely improve learning outcomes. There is no reason learners could not solve concept problems since easier ways are presented to expect tangible output and lifelong outcome. By this, children translate word problem solving skills to lifetime ability. It related learning competencies to the real-world scenario. Accordingly, learners were motivated to make linkage between ideas and practical application to their lives. Instructions provided were effort-based and situated learning. Here participants easily followed directions and later produced answered activity sheets. In my interview with Sam, she recalled:

> *"Makapass nako ug activity sheets sa schedule kay makaanswer na man ko, kay nakasabot na man ko sa pamaagi."* (Archive #101)
>
> I understood the process and that I could pass my answered activity sheets on submission schedule.

Similar account was spoken by Nardo in our casual talk by the roadside.

> *"Ang mga halimbawa sa video kay masabtan ug masubay ra."* (Archive #203)
>
> The examples used in the video were easy to understand and follow.

Simplifying instructional tasks on video clips elicited maximum participation from learners even during pandemic. They are real, authentically experienced and appreciated. Learners' response to modular responsibilities evidently increased and parents' feedback was so motivating. Making instruction simpler is giving parents as learning facilitators at home, the coaching opportunity to enjoy with their children. It is tantamount to capacitating parent-mentors to embrace teaching moments in their respective roof. This is the purpose it was designed with group of learners, who were honest enough of their struggles to learn Math. Critical thinking skills are far enhanced by simplifying instructions without forfeiting the Most Learning Competencies (MELC) in the third quarter. Similarly, Seigel (2013) underscored student learning is the primary purpose of any simplification of tasks. Planning is one of the most significant tasks teachers take on to prepare meaningful and engaging lesson and to provide best learning experiences.

Demonstrating Abstracts. Showing the right way to solve problems is explicitly giving technical steps. Problem-solving is a child-centered method that values learners' active involvement in the learning moments. I embrace my role as teacher to make learning possible in the remote instruction. Even in videos, I successfully created a fear-free atmosphere to help key informants analyzed the problem by providing a welcoming approach. Unlocking mathematical terms on word problems was a first step to comprehension. By then, careful problem

analysis followed to develop divergent thinking and concept understanding. When I talked to Jasmin, displaying innocence, I received very honest remarks about sending her videos. With a sure smile, she declared:

> *Pirmiro, libog ko. Salamat sa Ginoo ug sa video Sir. Nakasabot ko gamay. Makasolve pod gamay sa questions.* (Archive # 105).
>
> I was confused at first. I thank God for your video for I understood a little and could even attempt solve problem.

Those honest remarks moved me to work better and produced highly interesting content for video clips with brief presentations. The main goal was to make abstracts concrete for children to solve problems and to have a touch of reality in life's negative encounters. Scaffolding was a tactic to feed clear steps to attack solutions. One most important thing the participants developed during problem solving was to carefully identify operations to take. Therefore, with the given technique, pupils are offered a range of critical analysis associated with steps in the solution process. In that sense, abstract becomes concrete. Learners were free to construct their own ideas in Math and responsible for their own learning.

Math is about reasoning to arrive at solutions rather than applying a set of procedures, which means allowing children to explain the processes (Wu & Zhang 2016). As in the context of this localized innovation, simplifying the processes developed the learners deeper understanding of Mathematical concepts to later appreciate the relevance of Math in their day-to-day life. Applying sets of procedures and practical decision making to arrive at right solutions are the subtle take aways of this intervention.

The most-loved part of CPA approach is the change in learners' behavior towards problem solving which consequently improve their critical thinking ability. Short videos were practical enough to present the basic content and to maintain the attention span of participants. Video clips were the ultimate vehicle to developing problem solving skills and mastery. The pictorial appeal powered lasting effect for recall and comprehension. The abstract visual representations application offered meaningful learning through existing commodities in the households which promote local utilization in content and context.

Developing a Positive Attitude towards Computation. Short instructional videos created an all-encompassing disposition toward learning. The time element for showing content was relevant to keep attention span and to maintain focus. From motivation up to the confidence level, learners showed persevering character in computational skills. Video clips, with authentic content, brought a new viewpoint on ways to improving problem solving ability. Children were loud enough to share happy learning moments as they exhibited enthusiasm in the submission of their completed and answered learning activity sheets. These key information partners got so many reasons to combat their Math struggles in the new normal. They were prepared to attack and solve a problem as they manifested in their remarks during candid interviews. Rosal and Eugenio gladly recounted their experiences on three-minute habits. With beaming eyes, they described:

> *"Malipayon.Dasig pod. Mubo ang video pero dali ra sabton. Excited ko motan aw sa video nga ipadala. Pwede ra man gud usbon ug tan aw."* (Archive # 103)
>
> I was happy, motivated and excited to watch the short videos. They were short and comprehensive and easy to replay.

> *"Lipay kay maglearn na pod Math. Feeling nako kabalo ko mo solve sunod na problem."* (Archive # 202)
>
> I was glad to learn Math. I felt I could already solve other Math problems.

Videos are increasingly a common alternative in teaching and learning as well as in the wider academic domain especially this pandemic. However, it is generally accepted that shorter videos are more engaging than longer videos (Shank 2019). To struggling children, the three-minute videos are their comfort zone to learning, for these reduce intellectual overload instead maximize retention. Thus, video clips provide simpler, practical and engaging learning experiences. Visual presentation reassures pupil participation with concepts. This creates a higher imprint and memory in learners' minds.

Enhancing Critical Thinking. The localized teacher-made video clips improved learners' analytical ability. The screen time was just right to make children focused and attentive to inputs. This is one positive effect of a three-minute habit where learners understood the concept of abstract and solved Math problems related to life. Evaluating and making decisions are part of scaffolding problems to arrive at the right solution which implies treating the problem systematically. Learners manifested improvement in Mathematical strength through complied modular tasks. They expressed a kind of satisfaction as we had our chitchat in school during the limited face-to-face. With innocence, the young Gardenio expressed:

> *Sa wakas makasolve nako sa problem kay pwede man nako balik balikon tan aw ang video nga padala. Makaanswer nako sa activity sheets.* (Archive # 205)
>
> I repeatedly watched the videos for mastery. Finally, I could solve Math problems and could submit activity sheets.

Similar pleasure was pronounced by Francisco. With pride and hope, he acknowledged:

> *Salamat. Nakatabang gayud ang video nga makasabot ug Math. Makapasar sa Grade 6 kay nahuman man ang assignment. Grade 7 na puhon.* (Archive #201)
>
> Thank you. The videos were a great help in understanding Math and complying with the assignments. I hoped to graduate and pursue Grade 7.

Children, with grateful hearts, appreciated the positive impact the three-minute habit offered. The systematic learning and the application of procedures had become part of learners' routine in modular classes. The abstract concepts that the children learned become concrete and so they build the concept of solving well. Sulisworo & Sutadi (2017) recognized the cognitive-affective theory of learning expands multimedia instruction like virtual reality and case-based learning environments presented more than words and pictures. The teacher is the agent of learning. In the three-minute habit, learning is active and fun. It increases learning outcome, problem solving, learner skill and motivation. Subsequently, an increase in Math performance is evident in the learners' final rating.

Finally, learners improved the critical skills and knowledge of the volume of solid figures and meter reading in mathematical problems. They created and interpreted representations of data and applied experimental probability in Mathematical problems. Learners' experiences in dealing with Math problems are their weapons to make practical and systematic decisions in facing real-life solutions.

Reflection

In this most trying moment, it is the teachers call to make learning happen. Making abstract concrete is providing the reality that education can be achieved when one holds to his/her dreams and responsibility. Though the three-minute habit has more focus on the critical thinking aspects, it also increases the interest and motivation of children in the learning process. Designing instructional videos matters by considering the needs and characteristics of struggling learners so that they can achieve their high level of cognitive and affective abilities.

This modular journey made me reflect of becoming an effective and innovative educator. It gave me the affirmation that children have their own pace in learning especially in computation. It allowed me to be more flexible to cater their limitations. I think I need to modify some of my videos and recreate a few to their basic backgrounds.

With Concrete Pictorial Abstract (CPA), problem solving skill is improved. With well-thought strategy, life skills are developed. With localized and contextualized instruction, learners are involved. With concrete examples, output is tangible. With comprehensive steps, significant effects happen even in modular distance learning. Bridging the Mathematics gap in the moment of seclusion is making learning accessible and available through technology.

VI. PLANS FOR DISSEMINATION AND UTILIZATION

Basically, concerned individuals shall be given the right information after interpreting and analyzing the data. Results shall be disseminated through training, seminars, and meetings. In the month of May 2023, presentation of results and implication of the study shall be disseminated to teachers. The gains about the strategy of utilizing three-minute CPA educational videos to learners shall be shared to all teachers in Matti Elementary School through School Learning Action Cell (SLAC) then to a bigger forum-Division Research Congress. The results of the study may be utilized in the decision-making process of the school. Utilization of the said innovation shall be the main campaign to all Math teachers to positively continue teaching and learning even in these trying moments.

Table 4. Research Dissemination Activities

Activities	Time Frame	Audience	Success Indicator
Conduct information on the Research Findings at our School through LAC sessions and PTA Assembly	4th week of May 2023	All teachers and parents of Matti Elementary School	Feedback from teachers and parents
Giving of Brochures about the research	2nd week of August 2023	Schools in City Schools Division of Digos	List of Schools received a copy of the brochure
Participate in Division Research Forum	1st week of August 2023	All invited teachers, school heads, supervisors and other guests	Feedback from the attendees about the findings as disseminated
Participate in Regional Research Congress	1st week of December 2023	All invited researchers	Feedback from the attendees during the dissemination.

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