

Project RECOVER: Shared engagement and accountability towards learning recovery in the post pandemic education

Mayos, Gedion Chanao ✉

Antonio B. Del Rosario Sr. Memorial Elementary School, Philippines (dionmayos@gmail.com)

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Abstract

The main purpose of Project RECOVER is to bridge the learning gaps of learners with 75 to 79 final ratings. The Grade 4 learners with 75 to 79 final ratings in Science 3 was the target of the project. The (36) learner participants were exposed to different strategies. The One-Group Pretest-Posttest Design was used that the pretest and posttest were administered before and after the implementation of the project respectively. The scores were recorded then analyzed accordingly. To determine the significant improvement between the pretest and posttest results, a paired sample t-test was used. The learners' level of mastery in the posttest is higher than in the pretest. It indicates that Project RECOVER is associated with the increase in the learners' performance in Science 3. There is a significant difference in the pretest and posttest scores of the Grade 4 learners in Science 3. The significant increase of level of mastery was due to doable teaching strategies, and shared engagement and accountability of school as well as the stakeholders. The stakeholders who were engaged in the project had knowledge and potential in teaching Science 3. However, their abilities and background on teaching strategies, techniques, and approaches were limited. Project RECOVER is a shared engagement and accountability between the school and its stakeholders. It has its goal towards learning recovery in post pandemic education.

Keywords: Project RECOVER, shared engagement, science, technology, accountability, stakeholders

Project RECOVER: Shared engagement and accountability towards learning recovery in the post pandemic education

1. Introduction

One of the affected sectors during the pandemic is education. Schools worldwide were closed then shifted to remote learning. According to the World Economic Forum 2020, even before Covid-19 forced a closure of schools around the globe, the world was in the middle of a learning crisis that threatened efforts to build human capital-the skills and know-how needed for the jobs of the future. More than half (53%) of 10-year-old children in low- and middle-income countries either had failed to learn to read with comprehension or were out of school entirely. This is what the World Bank called learning poverty.

Efforts on strengthening strategies to recover from the post pandemic are top priorities in the field of education. According to the United Nations International Children's Fund or UNICEF, simply reopening schools is not enough. Students will need tailored and sustained support to help them readjust and catch-up after the pandemic. The UNICEF, UNESCO and World Bank have joined forces to launch Mission Recovery Education 2021 focusing on three priorities: All children and youth are back in school and receive the tailored services needed to meet their learning, health, psychosocial wellbeing, and other needs; students receive effective remedial learning to help recover learning losses; and all teachers are prepared and supported to address learning losses among their students and to incorporate digital technology into their teaching.

In the Philippines, following the progressive expansion of face-to-face classes, the Department of Education (DepEd) develops a learning recovery plan framework to guide schools in addressing learning gaps due to pandemic-related disruptions. Learning recovery plan, which is a comprehensive and doable approach of ensuring that all learners are engaged in a meaningful learning experience under the in-person modality is essential to address the gaps in learning. These gaps underscore the learning experience during the pandemic for school year 2021-2022 relating to physical, psycho-social, and emotional factors affecting learning outcomes as inputs to the learning recovery plan.

In response, Antonio B. Del Rosario Sr. Memorial Elementary School crafted its Learning Recovery and Continuity Plan (LRCP). The school's LRCP is subdivided into three categories namely Learning Remediation, Socio-Emotional, and the Professional Development of Teachers. Under the Learning Remediation, it focused on literacy, and numeracy as well as those with a final rating of 75-79. It was found out that Science has 287 learners with 75-79 final ratings. To bridge the learning gap in Science, Project RECOVER or Revitalize Every child Chance and Opportunity to learn through Varied and Engaging Responses was recalibrated.

Project RECOVER is a remedial activity to bridge the learning gaps given to learners with 75 to 79 final ratings SY 2021-2022. The first set Project RECOVER was conducted from October 2022 to January 2023. After the conduct of the project, in all learning areas, it was found out that there are still 36 learners who did not master the least mastered competency in Science 3. The 4th Grade recorded 36 out of 72 or 50% are still in "Average Mastery". With this result, the focus of this study will be Science Grade 3.

The reason for the continuation and recalibration of the conduct of the study is due to the strong commitment of the school to ensure that every-aged child and youth to benefit from high quality basic education services.

In the article of Hermando-Malipot, M. (2020), he published in Manila bulletin that Briones noted that DepEd, having been mandated by Republic Act No. 9155, the Governance of Basic Education Act of 2001, "continuously conducts education research studies that serve as bases for necessary reforms and development." Align with DepEd's initiative to use data and research-based information for planning that the result of this

project will serve as basis for decision-making by the planning committee for the adjustment in the School Improvement Plan (SIP), Annual Improvement Plan (AIP), and the School-Based Management (SBM). It will also determine the success of the LRCP of the school. The result of the study will determine the best innovative activities that could be benched marked by other schools.

1.1 Action Research Questions

The General Research Questions are:

- How is the curriculum able to contribute to achieving learning outcomes?
- How is the curriculum responsive and relevant to learners?
- How effective are rehabilitation and recovery intervention of the Department in delivering learning continuity in school?

The Specific Questions are:

- What are mean scores of the learners in the pre—test and post-test in Science 3?
- What is the mastery level of the mean scores of pupils in the pre-test and post-test in Science 3?
- Is there a significant difference in the pre-test and post test scores of the learners?
- What course of action shall be taken after the project?

2. Proposed Innovation, Intervention, and Strategy

Based on the results of the assessment conducted, the 4th Grade recorded 36 out of 70 or 50% are still in “Average Mastery” or failed to meet the mastery level underwent to Project RECOVER. The Thirty-six (36) targeted learners underwent to interactive remedial activities with a twist. During the first implementation of the project in the past four (4) months, the Project RECOVER’s strategy was focused on teacher-student interaction. During the second implementation of the project, the strategy was teacher-student with participation of stakeholders, and with the utilization of technology. The teachers had close coordination and collaboration with stakeholders in giving remedial lessons through the duration of the study. The learner participants in the afternoon session were taught in the morning while the morning learner participants were taught after the class. The remedial activity was twice a week or 100 minutes a week. Strategic room was utilized.

According to the article posted in EduBirdie.com., it mentioned that the involvement of the community can improve communication and understanding of the needs and way of working of an institution. Moreover, when all the direct and indirect stakeholders come together, students are encouraged to take learning more seriously and improve learning. In connection, Pile, J. (2020) and Gilchrist, L. (2020) mentioned that every adult, if seen, heard, and valued for their strengths and gifts, has much to offer directly and indirectly to the growth and development of children. Family, school, and community stakeholders are sources of connections and love, resources, and opportunities, learning and play for our kids. They are sources of expertise in careers, hobbies and much more. They are sources of inspiration, hope and resilience.

The pretest results were recorded and consolidated from the different sections where the learner participants belong. It should be noted that these assessments or summative test were all checked, and quality assured by the Master Teachers. After consolidating the results, implementation of Project RECOVER has begun. In figure 1, the procedural flow of the conduct of the study was shown. It started from the pretest result then followed by the implementation of the project proper, then a conduct of the posttest, and a post plan activity.

The following are the Most Essential Competencies (MELC) in Science 3 that need to be mastered by 36

Grade 4 learner participants:

Science 3 3rd Quarter MELC

1. Describe the position of a person or an object in relation to a reference point such as chair, door, another person.
2. Describe the different uses of light, sound, heat, and electricity in every life.

Science 3 4th Quarter MELC

1. Relate the importance of surroundings to people and other living things.
2. Describe the changes in the weather over a period of time.
3. Enumerate and practice safety and precautionary measures in dealing with different types of weather.

Describe the natural objects that are found in the sky during daytime and nighttime.

The project was a collaboration among teachers and stakeholders. The expertise of the stakeholders was on great help so that the students deeply understood the lesson that they need to master. After the conduct of the project in each quarter, a posttest was given. The posttest was compared with the pretest result. The differences of the result were treated and interpreted. The last part of the research determined the post activity plans. The activity will be the sharing of the result into research colloquia, LAC sessions, and bench marking activities. Lastly, Project RECOVER with a twist will be one of the solutions to the general questions set forth in the BERF and to the specific questions mentioned earlier. It was a successful project by shared engagement among school and its stakeholders.

3. Action Research Methods

3.1 Participants and /or Other Sources of Data and Information

The target learner participants are the Grade 4 Morning and Afternoon shift learners of Antonio B. Del Rosario Sr. Memorial Elementary School who had a 75-79 final rating SY 2021-2022 and did not improve to mastery level in Science 3. The participants underwent Modular Distance Learning (MDL) when they were in the 3rd Grade. During the conduct of the MDL SY 2021-2022, there was no assurance that learners were able to answer their learning modules or answered by their parents/elder siblings. Itorralba, M. (2021) listed seven (7) common encountered concerns on modular learning to students. The effects are 1.) Children dislike modular learning.; 2.) The parents or adults in the family answer the instructional modules.; 3.) Virtually no meaningful interaction between the students and their online learning modules.; 4.) Not all subjects are tackled.; 5.) Printed materials are poor quality.; 6.) Difficulty in solving equations.; and 7.) Poor connectivity.

The Thirty-six (36) Grade 4 learner participants participated in the project that they aimed to master the MELC that they did not master in SY 2021-2022. Out of (36) Grade 4 learners, (20) are males and (16) are females. A purposive sample was used. It is because the (36) learner participants did not master the expected MELC in Science 3 during the 1st and 2nd Quarter of SY 2022-2023.

3.2 Data Gathering Methods

The researcher used One-Group Pretest-Posttest Design from 3rd to the 4th Quarter. It means that a single group of participants were subjected to the same treatment. The effectiveness of treatment was tested by computing the difference between the pretest and posttest results. The study was conducted during the 3rd to the 4th Quarter of SY 2022-2023 or from February 2023 to July 2023.

A set of teacher-made-test with (35) items for pretest and posttest based on the MELC for Grade 3 Science was utilized. Each teacher made test was quality and validated by the Master Teachers before utilizing. A hard copy of the pretest was given on the first week of 3rd Quarter and a hard copy of the posttest was given on the last week of 4th quarter. The results were carefully recorded for proper interpretation.

3.3 Data Analysis

A quantitative method was used in analyzing the data. For question number (1), the pretest and posttest results were subjected to descriptive statistics like mean, standard deviation, and mean percentage scores. The Automated Item Analysis template used in the Learning Outcome Assessment (LOA) report released by the Division of Cavite Province was utilized. The LOA template is widely used by the teachers in Cavite Province quarterly to get the result of the reliable interpretation of the assessment. To answer question number (2), the mastery level in each item of the pretest and posttest will be using the scale below.

Mastered	M	28-35
Nearing Mastery	NM	21-27
Average Mastery	AM	14-20
Low Mastery	LM	7-13

To determine the significant improvement between the pretest and posttest results, a paired sample t-test was used. According to Frost, J. (n.d.), a paired t-test determines whether the mean change for these pairs is significantly from zero. This test is an inferential statistics procedure because it uses samples to draw conclusions about populations.

4. Discussion of Results and Reflections

Presented in Table 1 are the pre- and posttest scores of Grade 4 Learners in Science 3 during the implementation of Project RECOVER. The learners' mean scores in the posttests (mean=23.28; SD=4.179), which is interpreted as Nearing Mastery (NM), is higher than the mean scores in the pretest (mean=13.25; SD=3.475), which is interpreted as Low Mastery (LM). This indicates that Project RECOVER associates with the increase in the learners' performance in Science 3 making their scores widespread. Answering the 3rd specific research question, the difference in the pre- and posttest of the Grade 4 learners in Science 3 is shown in table 2. The table reveals that the learners' mean score in the posttest (mean=23.28; SD=4.197) is higher than the scores in the pretest (mean=13.25; SD 3.475).

Using the t-test for paired means, the t-value obtained was $t=-13.184$ ($p=.000$). Since the p value associated with the obtained t-value is less than the significant ($\alpha=0.05$), it is concluded that there is a significant difference in the pretest and posttest scores of the Grade 4 learners in Science 3 after the implementation of project RECOVER as evidenced by the test scores. It is emphasized that the improvement of the level of mastery of the learners in Science was due to the strong commitment of teachers in using doable teaching strategies like the utilization of technologies, and with strong shared engagement and accountability in partnership with stakeholders during the conduct of the project.

In support of the findings of the study, James Kulik (1994) as cited by Schacter (n.d.) who used a research technique called meta-analysis with aggregated the findings of more than 500 individual research studies of computer based instruction found out that on the average, students who used computer based instruction scored at the 64th percentile on tests of achievement compared to students in the control conditions without computers who scored at the 50th percentile.

Summary - The level of mastery of the Grade 4 learners in their pretest is Low Mastery (LM), and Nearing Mastery (NM) in their posttest. There is a significant difference in the pretest and posttest scores of the Grade 4

learners in Science 3 who underwent Project RECOVER.

5. Conclusions

Based on the findings and summary, the following conclusions were drawn:

- Learners' mastery level is improved and enhanced through the strategies and involvement of the stakeholders during the implementation of the project.
- The teachers and the stakeholders remain a significant factor in the effective implementation of the project leading to the whole achievement of the project goals.
- The improvement of the Mastery Level of scores of learners are influenced by using strategies like the utilization of technologies and strong commitment of teachers and shared engagement and accountability of school and stakeholders during the implementation of the project.

Recommendations

- Science education can be made more effective and productive through encouraging teachers to use varied and appropriate strategies.
- Strong partnership with stakeholders for shared engagement and accountability in the implementation of school projects should be sustained.
- Mastery level of learners in the MELC should always be a school and a home responsibility.

Action Research Work Plan and Timelines

The first activity conducted was the accomplishment of prescribed research applications. It includes the declaration of anti-plagiarism, and oath of authenticity and veracity of documents. Followed by the reorientation of the teachers and learners. The orientation focused on the new strategies to be used during the implementation of Project RECOVER, and for the learners, schedule, and rooms to be used was emphasized. Then letters to parents for their consent was given. All the parents of the (36) learners gave their consent. Next was the crafting of school memo indicating the name of the teacher and learner participants. Followed by crafting of the pretest and it was validated by the Master Teachers. After the validation, printing of the final copy of the pretest and administering it came next. It was carefully consolidated and recorded for proper interpretation.

The second part was the invitation to possible and able stakeholders as partners during the conduct of the activity. The stakeholders served as resource speakers and assisted by the teachers. The SK, barangay LGU, alumni, health workers/professionals, teachers from junior high school, and others served as resource speakers during the conduct of the activity.

The third part was the conduct of project RECOVER proper. It started in February 2023 and ended in July 2023 for a duration of (6) months. Monthly progress monitoring of the project was closely monitored by the Master Teachers. Most Essential Learning Competencies, strategies/approaches, attendance record of the learners, activities/weekly evaluation, schedule of resource speakers, queries of parents, and materials needed during the activity are among the areas monitored by the Master Teachers.

The fourth part is the crafting of the posttest then validated by the Master Teachers. Printing and administering of the test followed. After the checking, the result was consolidated and recorded for proper interpretation of the data gathered. The result was compared with the pretest as seen in table 1 and table 2.

The fifth part was the conduct of recognition to all the teachers, learners, stakeholders, and committees involved in the project implementation. Parents were invited to join the recognition ceremony.

Lastly, the accomplishment of research output or research write up, post project meeting of teachers for future activities, and the conduct of group evaluation and reflection to determine the different challenges encountered during the implementation of the project was held.

Plans for Dissemination and Utilization

The dissemination activities were classified in (4) areas namely School Learning Action Cell (SLAC), District Learning Action Cell, research conferences, and publications. In SLAC and District LAC, the Master Teachers discussed the result of the research and possible adaptation in other learning areas. Research presentation via online, oral, and other modes of presentation during district, division, regional, up to international research conferences. Lastly, the dissemination of Project RECOVER is through publication in local and international organizations of research and education.

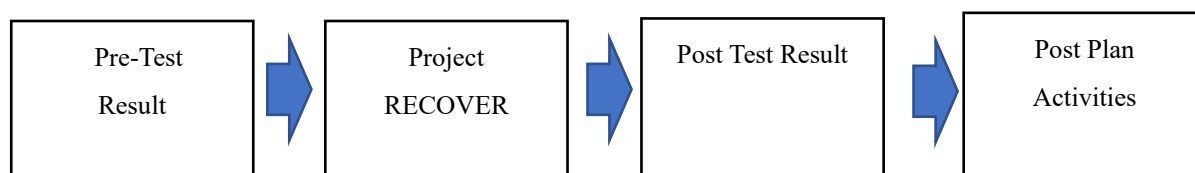
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Appendix

Figure 1

Procedural Flow of the Conduct of the Study



The figure shows the procedural flow of the conduct of the study. It started with the pretest then followed by the implementation of Project RECOVER. After the implementation was completed, a posttest was conducted. Post plan activities followed the result of the posttest.

Table 1

The Pretest and Posttest Scores of Grade 4 Learners in Science 3 During the implementation of Project RECOVER.

Test	Minimum	Maximum	Mean	Mastery Level	Standard Deviation
Pre	8	22	13.25	LM	3.475
Post	16	31	23.28	NM	4.179

Table 2

The Differences in the Pretest and Posttest Scores of Grade 4 Learners During the Implementation of Project RECOVER.

Test	Mean	Standard Deviation	Descriptive Equivalent	Obtained T-Value	P-Value
Pre	13.25	3.475	LM		
Post	23.28	4.179	NM	-13.184*	.000

* Significant at alpha = .05

Table 3

The Action Research Activities for (6) Months

ACTIVITIES	*Month Feb. 2023	Month March 2023	Month April 2023	Month May 2023	Month June 2023	Month July 2023
1. Accomplishment of prescribed research application						
2. Reorientation of the Teacher and Learner participants						
3. Sending of letters to parents for consent						
4. Crafting of school memo indicating the name of teacher and learner participants						
5. Drafting of the pre-test						
6. Validating the pre-test						
7. Printing and administering the pre-test						
8. Consolidating and recording the pre-test result for proper interpretation						
9. Sending invitations to possible stakeholder as partners during the conduct of the study.						
10. Conduct of Project RECOVER						
11. Monthly progress monitoring						
12. Drafting of the post-test						
13. Validating the post-test						

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14. Printing and administering the post-test							
15. Consolidating and recording the post-test result for proper interpretation							
16. Conduct of recognition to the all the participants and committees involved							
17. Accomplish then finalize the research output/writeup							
18. Submit the accomplished research output/writeup							
19. Post project meeting of teachers to plan for further activities.							
20. Conduct of group evaluation/reflection to determine the different challenges encountered during the implementation of the project. From the reflections, plans to improve more during the future conduct of the project will be tackled.							

The shaded part is the targeted month of the specific activity during the implementation.

Table 4

The Plan for the Dissemination and Utilization of the Research Project

	*Month	Month	Month	Month	Month	Month	CY
DISSEMINATION ACTIVITIES	Feb. 2023	March 2023	April 2023	May 2023	June 2023	July 2023	2023 2024 2025
SLAC							
District LAC							
Research conferences							
Publication							

The shaded part is the targeted month of the dissemination and utilization of the research project.

