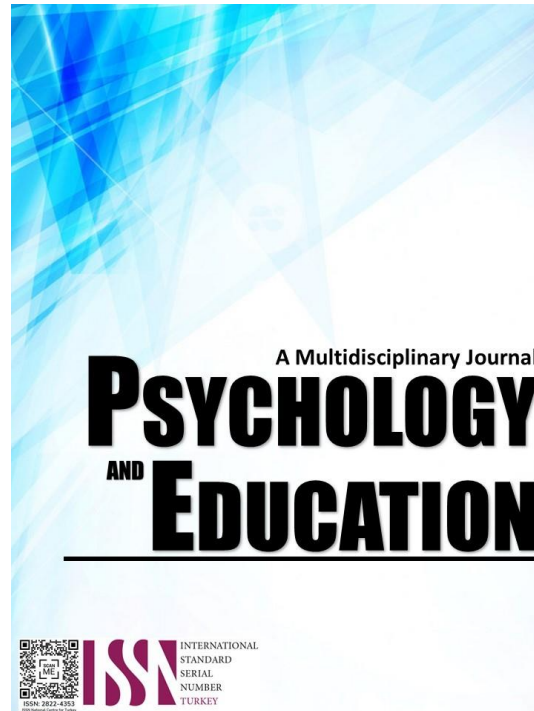


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Implementation of Project Numero at Cresdaville Elementary School: An Exploration

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Abstract

This study focused on the evaluation of the implementation of Project NUMERO (Number Understanding Makes Every Rizaleño Onboard) in Cresdaville Elementary School during the School Year 2022-2023. Descriptive method of research was utilized by the researchers to determine the evaluation and extent of the engagement of stakeholders on the said project. Forty (40) parents and six (6) teachers who were chosen purposively were asked to assess the project in terms of its objectives, instructional strategies, assessment techniques, and monitoring and evaluation, and the engagement of the stakeholders using the online survey questionnaire in the form of Google Form. Based on the results, it was found out that the two groups of respondents Agreed that the project enhances the pupil's numeracy skills, provides variety of instructional strategies for different learners, conducts assessment tests, and strictly monitors and evaluate the implementation of Project NUMERO. In addition, they Agreed that the stakeholders engaged in the aforesaid project. Furthermore, the recommendations included the conduct of capacity building among teachers and parents, utilization of peer-tutoring, establishment of strong linkage with other stakeholders, and development of materials to further improve the program.

Keywords: *mathematics, learners, project NUMERO, numeracy skills*

Introduction

Mathematics is one of the major subjects in the Elementary Curriculum. Learning concepts in mathematics requires effort through problem-solving and investigative skills to unlock difficulties in learning mathematical concepts and ideas. It also aims to enhance the important 21st century skills such as critical thinking and problem-solving among learners which are essential in order for them to be competent individuals in the country, and the whole world at large.

Mathematics plays a predominant role in everyday life. Learning mathematics helps students think analytically and have better reasoning abilities. It helps them develop their lifelong learning skills to solve problems in life. Academically speaking, mathematics is a subject that many students either love or hate. It is hated by learners who do not find figures interesting, especially those students who are more into social sciences (Prayoga & Abraham, 2017). It is very true that mastering mathematics has become more important than ever. Pupils with strong foundation of mathematical skills have an advantage in academics and in the job market. Therefore, primary level is a critical point in mathematics education. Achievement at this stage clears the way for pupils to make rigorous high school mathematics and science courses and serves keys to college entrance and success in the labor force.

However, it is also undeniable that this subject is

considered by many as the most difficult one. In elementary set-up, there are still pupils who shows poor academic performance when math is concerned. This resulted to significant low scored in international examinations participated by the country like Trends in International Mathematics and Science Study (TIMSS) 2019 in which the country scored the lowest among 58 countries, and 2018 Programmed for International Student Assessment (PISA) in which Filipino students also ranked low in mathematics with 353 points.

The Department of Education orders no. 8 series of 2015 states that "A learner who receives a grade below 75 in any subject in a quarter must be given intervention through remediation or extra lessons from the teacher of that subject".

In this regard, the Schools Division Office of Rizal implemented division-wide program known as Project NUMERO (Number Understanding Makes Every Rizaleño Onboard) to ensure that learners can keep up on all Most Essential Learning Competencies (MELC) within and across their grade levels. This primarily aims to incline the identified learners on the foundation numeracy skills based on their numeracy level, engage learners on the developed learning intervention materials both in physical and in virtual platforms, and make the identified learners onboard on their ideal numeracy level. Learners who were identified as Non-Numerates, Beginning level, and Emergent level based on the pre-test result of numeracy assessment, were beneficiaries of this Individualized Learning Intervention Program.

Cresdaville Elementary School conforms with the objectives of the aforesaid programs to address the problems in the numeracy skills of its pupils. Currently, the school caters nineteen (19) non-numerate pupils and fifty-four pupils who were identified under emergent numeracy level as reflected in the results of the pre-test assessment that was administered.

As the school started to conduct the set activities in the program, the researchers wished to assess how it is being implemented and how its process is being carried out as one of the major projects in CES to respond to the needs of the pupils particularly in improving their numeracy skills.

Consequently, the researchers observed that the teachers who are concerned with this project experienced challenges with regard to its project as this is being done as additional task to them. In addition, there were limitations as regards to the participation of the external stakeholders and parents of the target pupils.

With this reason, they opted to pursue this study focusing on the evaluation of implementation of Project NUMERO (Number Understanding Makes Every Rizaleño Onboard) in Cresdaville Elementary School. Likewise, the researcher aimed to provide valuable validations that would contribute to further improve the project.

Research Questions

This study which aimed to evaluate the implementation of Project NUMERO (Number Understanding Makes Every Rizaleño Onboard) was conducted at Cresdaville Elementary School during the School Year 2022-2023. Specifically, it sought answers to the following questions.

1. What is the evaluation of parent-respondents and teacher-respondents on the implementation of Project NUMERO in terms of:
 - 1.1. objectives.
 - 1.2. instructional strategies.
 - 1.3. assessment techniques; and
 - 1.4. monitoring and evaluation?
2. What is the extent of stakeholders' engagement in Project NUMERO as perceived by the respondents?
3. What are the suggestions of the respondents for the further improvement of the program?

Literature Review

Learning Mathematics with understanding is essential. Bringula et al. (2021) stressed that to understand concepts of various discipline, students cannot rely on memorization of facts. Memorization of rules and mastery of computations are not the same as real knowledge of concepts and ideas. Danley (2008), in this connection, argued that understanding Mathematics is not only about understanding concepts but also the ability to explain it and the relationship among them. If the students understand the deep meaning of the concept, they have a conceptual understanding. Similarly, Avong (2013) stated that conceptual understanding brings students' potential in learning and promote learnings in Mathematics.

Niss et al. (2016) emphasized that Mathematics teaching and learning should support students in developing their mathematical thinking and reasoning abilities. Regarding how relevant the problems, questions, or instructions the teacher provides to make them think and articulate what they think or understand, particularly during the COVID-19 pandemic, it leads to how mathematics teachers establish mathematical dialogue in their teaching and learning. Their research illuminated the reality of mathematics teaching, learning, and teachers' efforts to continue a mathematical dialogue through distance learning during the pandemic.

Webb's study (2012) focused on middle schoolteachers working over a four-year period in a professional learning situation to improve their classroom assessment practice. Teachers engaged in a variety of collaborative activities, such as assessment planning, and analysis of classroom tasks and student work. Teachers tried out the assessment ideas in their classes and brought back those experiences to the group, thus providing authentic classroom connections. The project demonstrated an increase in teachers' use of higher cognitive demand tasks involving problem contexts. Webb suggested that professional learning needed to challenge teachers' prior conceptions of assessment as well as the way they saw mathematics.

As stated by Goodrich (2018), Mathematics teachers need to be able to use intervention strategies that are specific and targeted to struggling learners to be able to best address their needs. To determine interventions that will progress learning, teachers must be able to use assessments to pinpoint areas of need.

On the research conducted by Valenzuela (2018),

which provided an understanding of how students construct mathematical knowledge via a contextualized curriculum. He found out that contextualization is effective. The effectiveness was illustrated through the student's ability to better understand mathematical problems and solve them successfully. Students were more engaged with context around the mathematical problems which lead to the high success rate of the teaching and learning process. Moreover, the recommendation focused on pedagogical practices to assist students in learning Mathematics through a contextualized curriculum, and gaining an understanding of how students construct knowledge.

Methodology

The researchers utilized purposive sampling technique in choosing the respondents of this study. Purposive sampling, also known as judgment, selective or subjective sampling, is a sampling technique in which researcher relies on his or her own judgment when choosing members of population to participate in the study (Saunders, 2012). This was the suitable method to be used since the researchers are colleagues of the teacher-respondents and they know the parent-respondents. In addition, they have chosen to respondents based on their willingness to participate.

Descriptive method of research was used in this study. Descriptive research is a research method describing the characteristics of the population or phenomenon studied. The method primarily focuses on describing the nature of a demographic segment without focusing on why a particular phenomenon occurs. In other words, it describes the research subject without covering why it happens (Bhat, 2022).

Online survey questionnaire was administered through Google Form to gather the needed data. The link was sent to the respondents to determine their evaluation on the implementation of Project NUMERO in terms of objectives, instructional strategies, assessment techniques, and monitoring and evaluation and the extent of the engagement of stakeholders in the said project. It was also used to gather suggestions from the respondents for further improvement of the project. The researchers themselves monitored the online form to make sure that it served its purpose to answer the research problems presented in this paper.

Ethical Considerations

It was imperative that ethical issues should be

addressed and considered within the course of the research process. This research adhered to the ethical principles set by the school. The researcher explained the purpose of the study and the roles of the respondents. Likewise, the data were ensured to be treated with utmost confidentiality and were used only for the research.

Results and Discussion

Evaluation of Parent-respondents and Teacher-respondents on the Implementation of Project NUMERO

Table 1. *Evaluation of the Two Groups of Respondents on the Implementation of Project NUMERO in terms of Its Objectives*

Objectives	Parents		Teachers	
	Mean	Verbal Interpretation	Mean	Verbal Interpretation
1. The program develops love for Mathematics among pupils.	3.33	Much Agree	2.83	Agree
2. The program enhances the numeracy of the clientele-pupils.	3.40	Much Agree	3.00	Agree
3. The program motivates the pupils through the activities which leads to their increased academic performance.	3.25	Much Agree	3.33	Much Agree
4. The program capacitates teachers and parents with different strategies.	2.58	Agree	2.50	Agree
5. The program establishes collaboration among pupils, parents, and teachers.	3.38	Much Agree	3.33	Much Agree
Overall Mean	3.14	Agree	3.00	Agree

It can be seen on the table that the parent-respondents evaluation on the implementation of Project NUMERO in terms of its objectives gained an overall mean of 3.14 and verbally interpreted as Agree, while the teacher-respondents' gained an overall mean of 3.00 and verbally interpreted as Agree. It can be reflected that the two groups of respondents believe that the objectives of the project was achieved, and it contributes to the development of students' performance, especially in their numeracy skills.

Meanwhile, it is important to note that both groups, though they agreed, gained the lowest mean under Agree level in item number 4 which is about capacitating teachers and parents about the strategies of the program. It can be recommended that the schools should also conduct training for all the teachers and parents so that they can aid in the implementation of the project.

Table 2. *Evaluation of the Two Groups of Respondents on the Implementation of Project NUMERO in terms of Its Instructional Strategies*

Instructional Strategies	Parents		Teachers	
	Mean	Verbal Interpretation	Mean	Verbal Interpretation
1. The program provides variety of instructions for every kind of pupil.	3.45	Much Agree	3.33	Much Agree
2. The program designs appropriate mathematical lessons to meet the needs of the clientele.	3.38	Much Agree	3.00	Agree
3. The program uses peer-assisted instruction to help the clientele.	2.43	Disagree	2.33	Disagree
4. The program utilizes explicit instruction on critical mathematical competencies.	3.23	Agree	3.17	Agree
5. The program considers pacing for mastery of the lesson.	3.13	Agree	3.00	Agree
Overall Mean	3.12	Agree	2.97	Agree

It can be seen on the table that the parent-respondents evaluation on the implementation of Project NUMERO in terms of its instructional strategies gained an overall mean of 3.12 and verbally interpreted as Agree, while the teacher-respondents' gained an overall mean of 2.97 and verbally interpreted as Agree. It can be reflected that both groups of respondents concurred to the idea that the project uses suitable strategies to enhance the numeracy of the clientele considering their diverse needs.

On the other hand, it can be noted that the two groups of respondents do not agree to the idea of peer-instructions as reflected in the mean of statement number 3. It can be recommended that the implementers should consider utilizing other students who perform better to provide assistance to their classmates who are in the program.

Table 3. *Evaluation of the Two Groups of Respondents on the Implementation of Project NUMERO in terms of Its Assessment Techniques*

Assessment Techniques	Parents		Teachers	
	Mean	Verbal Interpretation	Mean	Verbal Interpretation
1. The program implementers use the materials provided by the division office.	3.30	Much Agree	2.50	Agree
2. The program implementers conduct interview to teachers, parents, and peers.	3.25	Much Agree	2.83	Agree
3. The program implementers constantly observe the clientele throughout the conduct of the program.	3.18	Agree	2.67	Agree
4. The program implementers establish pupil's progress tracking record.	3.15	Agree	2.83	Agree
5. The program implementers report the results of the pre-assessment and post-assessment.	3.28	Much Agree	2.83	Agree
Overall Mean	3.23	Agree	2.73	Agree

It can be seen on the table that the parent-respondents evaluation on the implementation of Project NUMERO in terms of its assessment techniques gained an overall mean of 3.23 and verbally interpreted as Agree, while the teacher-respondents' gained an overall mean of 2.73 and verbally interpreted as Agree. It can be reflected that both groups accorded that the project implementers use different techniques to assess the performance of their clientele to identify the level of enhancement of the pupils.

However, it is important to note that the teachers and parents believed that the project implementers should established a well-organized tracking record of pupil's performance. It can be recommended that the team should create and utilize tracking records that would reflect the progress of the pupils.

Table 4. *Evaluation of the Two Groups of Respondents on the Implementation of Project NUMERO in terms of Its Monitoring and Evaluation*

Monitoring and Evaluation	Parents		Teachers	
	Mean	Verbal Interpretation	Mean	Verbal Interpretation
1. The program implementers identify the actual status of the Project NUMERO.	3.13	Agree	2.50	Agree
2. The program implementers determine if the activities are implemented as scheduled.	3.30	Much Agree	2.83	Agree
3. The program implementers monitor the program progress from the start up to completion.	3.25	Much Agree	2.83	Agree
4. The program implementers identify the risks relative to program implementation.	2.48	Disagree	2.17	Disagree
5. The program implementers provide periodic and timely feedback on the conduct of intervention activities.	3.25	Much Agree	2.83	Agree
Overall Mean	3.25	Much Agree	2.73	Agree

It can be seen on the table that the parent-respondents evaluation on the implementation of Project NUMERO in terms of its monitoring and evaluation gained an overall mean of 3.25 and verbally interpreted as Agree, while the teacher-respondents' gained an overall mean of 2.73 and verbally interpreted as Agree. It can be reflected that both groups believed that the project is consistently monitored and evaluated.

Meanwhile, both parents and teachers disagreed to statement number 4 about the identification of risks on the implementation of the project. It can be recommended that the project team should also always look on the limitations or challenges encountered by the pupils, parents, and teachers during its conduct to determine the most possible solutions.

Extent of Stakeholder's Engagement in Project NUMERO as perceived by the Respondents.

Table 5. *Extent of Stakeholder's Engagement in Project NUMERO*

	Parents		Teachers	
	Mean	Verbal Interpretation	Mean	Verbal Interpretation
1. The stakeholders collaborate in the implementation of Project NUMERO.	3.23	Agree	2.83	Agree
2. The stakeholders assist school in sourcing out funds for the reading program.	3.30	Much Agree	3.00	Agree
3. The stakeholders engage in different activities related to the implementation of the program.	3.25	Much Agree	3.00	Agree
4. The stakeholders participate in remediation activities.	3.20	Agree	2.67	Agree
5. The stakeholders attend forum on the status of the program.	3.23	Agree	2.83	Agree
6. The stakeholders serve as advocate for the numeracy program activities.	3.18	Agree	3.17	Agree
7. The stakeholders assist in the monitoring of the reading program.	3.15	Agree	3.00	Agree
8. The stakeholders serve as volunteers in teaching the learners.	3.20	Agree	2.67	Agree
Overall Mean	3.22	Agree	2.90	Agree

It can be seen on the table that the parent-respondents perceived the extent of stakeholder's engagement in Project NUMERO as Agree with the obtained overall mean of 3.22, while the teacher-respondents perceived it Agree with an overall mean of 2.90. It can be reflected that they concurred to the idea that the stakeholders are participating in the implementation of the program.

However, it can be noted from their responses that they still look for the established relationship among all the key players to achieve the shared goals of Project NUMERO. It can be recommended that the school should conduct capacity building to pupils, parents, teachers, and other stakeholders in order for them to effectively and efficiently enhance the numeracy skills of the learners that would contribute to their academic performance.

Suggestions of the Respondents further Improvement of Project NUMERO

The following are the suggestions of the teacher and parent-respondents to further improve the implementation of Project NUMERO.

1. Conduct capacity building for teachers and parents to further explain the process of the program.
2. Establish a strong linkage among stakeholders who could help in the achievement of the objectives of the project.
3. Create a well-structured track record to effectively document learners' progress.
4. Utilize pupils who manifest good numeracy skills to aid their classmates.
5. Develop materials that are suitable to address the learners needs.

Conclusion

Based on the findings of the study, it was concluded that the two groups of respondents believed that Project NUMERO is an effective program to enhance the students' numeracy skills as reflected on its objectives. In addition, it utilized various strategies to address the needs of different students. Also, the project effectively measures the performance of the clientele through variety of assessment tests. Furthermore, the respondents agreed that the program is strictly monitored and evaluated to identify the risk and suitable measures. Lastly, the stakeholders participate in the implementation of the project to achieve its goals.

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