INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

****

TEACHERS' EXPERIENCES IN THE IMPLEMENTATION OF MATH ACTIVITIES IN ENHANCING NUMERACY SKILLS (MAENS) PROJECT: BASIS FOR PROGRAM IMPROVEMENT

ELLEN GRACE S. SAPIO
TEACHER I
Paaralan ng Buhay ng Don Domingo Granada
sapioellengrace@gmail.com

ABSTRACT

This qualitative study using phenomenological research design aimed to know the experiences of teachers in the implementation of Math Activities in Enhancing Numeracy Skills (MAENS) project. The study was conducted in Paaralan ng Buhay ng Don Domingo Granada, District of Nueva Valencia North, Guimaras. A researcher-made interview guide was administered to Eight (8) participants, 7 of whom are teachers, and one was a school principal. Thematic analysis was utilized for descriptive data analysis. Results revealed that the teachers' experiences on the implementation of project MAENS were improving learners' numeracy skills, enjoying while using interactive games, and presentation of varied approaches. The challenges encountered were insufficient time, learners' lack of interest to study, and lack of financial resources. On how they manage the challenges, the following emerging themes were management of time, follow-up lessons at home by parents, and provisions of technical assistance. The results of this study were the basis for program improvement.

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

****

Keywords: *Math Activities, Enhancing, Numeracy Skills, Program Improvement*

INTRODUCTION

Mathematics has been feared and considered as one of the most challenging subjects by most of the learners (Subia et al., 2018). As pointed out, learners have the power to choose how difficult (or easy) they find mathematics to be, a power that is furthered by educators and the setting that encourages interaction between them. He stated that teachers impact how the learners value the learning of Mathematics and activities related to it.

Therefore, understanding the content of other academic courses like physics, social studies, and even music and the arts requires an understanding of mathematics.

Numeracy, or the knowledge of numbers, counting, problem-solving, measuring, estimating, sorting, and identifying patterns, is the foundation of Mathematics skills (Langoban, 2020).

Being able to apply mathematical concepts to real-life situations is a sign of numeration. Gaining proficiency in numeracy is important for following the numerical components of the current culture and making well-informed beliefs. It gives people the ability to handle mathematical difficulties in both their personal and professional life with greater assurance and competence (Nelson & McMaster, 2019).

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Relative to the adverse effects on the numeracy performance of the learners during the two-year pandemic, the regional Memorandum Order No. 827, s. 2022 was released by the Department of Education, Regional Office VI (DepEd-RO VI) entitled "Enhanced Regional Unified Numeracy Test" (E-RUNT) which targets to develop the RUNT and evaluate the learners' numeracy level. The Department of Education mandated that all schools were subjected into E-RUNT administration that started its' pre-test last December 2022.

Childhood Education International (2020) pointed out that the education of today is the education of the future. Teachers must reflect upon current procedures and guidelines and identify ways to transform education to address new challenges in an increasingly complicated world to prepare pre-primary and primary-aged children for their future.

As a result, since there are many non-numerates in our school, the researcher looked further into the best program to develop numeracy skills as the foundation for intervention program improvement in Paaralan ng Buhay ng Don Domingo Granada, District of Nueva Valencia North, Guimaras. Conversely, this application might be able to assist learners who are having trouble understanding Math concepts so they can catch on and become proficient in those areas.

The researcher also hopes that teachers can enhance their skills in mathematical competencies in teaching mathematics which assisted the learners both ability and confidence to handle basic mathematical concepts.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

MATERIALS AND METHODS

Research Methodology

This chapter presents the research method, research design, participants of the study, data-gathering procedure, research instruments, and data analyses to be used in this study.

Research Method

The research method employed in the study was qualitative research using in-depth interviews.

During the interview, the interviewer and the interviewee were able to sit down face-to-face and discuss the set of questions regarding a certain topic. Through their answers to the questions, participants are intended to provide the essential or primary viewpoints of those involved in a particular issue within a social context (Wallace Foundation, 2022).

Research Design

The study used qualitative research design using phenomenology.

Creswell quoted by Jordan (2023) defines phenomenology as a qualitative research methodology that emphasizes the shared experiences of the group members. Reaching a description of the phenomenon's nature is the approach's main objective.

Interviews give participants in a qualitative study the chance to express their opinions, perceptions, and justifications without the researcher prejudging them (Galanes, 2013).

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Phenomenologists typically believed that human perception and interpretation of identical experiences shared some commonalities, which they attempt to discover, comprehend, and characterize (Finlay, 2013).

Participants of the Study

The participants of the study were the Seven (7) teachers teaching Mathematics from Kinder to Grade 6 and one (1) principal of Paaralan ng Buhay ng Don Domingo Granada, Schools District of Nueva Valencia North, Division of Guimaras.

The selection of participants used was total population. The researcher noted that the participants of the study were teachers teaching mathematics subject during the school year 2023-2024.

Sampling Design

The study employed a purposive sampling design, which is also referred to as judgment, selective, or subjective sampling. This sampling technique involves the researcher using their judgment to select study participants from the population according to Creswell as cited by (Jordan, 2023).

The researcher gained some insights into the world of his or her participants and to describe their perceptions and reactions.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Research Instrument

The research instrument used in this study was a researcher-made interview guide. A panel of experts validated the researcher-made interview guide. All comments and suggestions relative to the validation of the tool are considered by the researcher.

A written transcription of the answers of the participants during the in-depth interview was used. It was also utilized for data gathering and documentation depending upon the permission of the participants. Thematic analysis was employed to condense the study's findings.

Validity of the Research Instrument

The research instruments used in the study is the researcher–made interview guide to be validated by the expert jurors using The Eight–Point Scale Criteria for Content Validation by Good and Scates.

The instrument used in the study is content validated by panel of experts in the field of research. The panel of jurors were composed of experts in the fields of research, tests and measurements, and assessment. A thorough examination of question validity was conducted to ensure that the questions were approximately formulated and adhered to ethical consideration.

Validation criteria such as alignment with research objectives and question clarity, were assessed by three experts within the field. According to Carmines and Zeller (2021) content validity was established by evaluating the degree to which the measurement accurately reflected the particular content domain.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Data Gathering Procedures

After selecting the participants used in this study, the researcher secured participants voluntary participation as evidenced by signing a consent form.

The researcher first handpicked those teachers who are qualified to be interviewed. After choosing these teachers, a letter was given to them along with their profile and consent form of approval to be signed allowing the researcher to have the video recording during the interview.

After gathering the participants' written consent letters for the study, interviews commence for every participant. Interviews were conducted according to the availability of each participant and were done face-to-face. The interview format utilized the three different types: open-ended, semi-structured, and structured interviews centering on the questions.

An in-depth interview was conducted initially to learn the respondent's perspective on the study. Obtaining the point of view of every respondent is crucial. To fully capture the interviewee's words, a recording of the whole conversation was made available. The researcher used a thematic approach to compile all of the information that was collected through a series of interviews.
After completing the interviews, videos were recorded. The original and translated transcripts were categorized into meaning units (Ratner, 2015) and were thematically analyzed.

A meaning unit should always include the participant's comments as well as any clarifying questions that may be required. Ratner (2015) emphasizes that the meaning unit should maintain the psychological integrity of the idea being conveyed. It should not confuse the idea with other

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

ideas that express different themes or fragment it into meaningless, truncated segments. Therefore, logical and related comments were coded as one meaning unit.

Data Analyses

The information that was gathered in this study was properly analyzed using a thematic approach.

This qualitative analysis technique was used to identify the themes of teacher in enhancing numeracy skills as basis for program improvement in Paaralan ng Buhay ng Don Domingo Granada, Schools District of Nueva Valencia North, Division of Guimaras, during the school year 2023-2024.

Through in-depth interviews with multiple people who have experienced the event, the researcher conducted a phenomenological investigation to identify the fundamental structure of a single occurrence. From each participant's account of the phenomena, the researcher took out comments that she thought were pertinent. He then integrated these elements into a narrative description of the phenomenon and grouped them into themes. Then, using Fraenkel and Wallen's narrative account of the phenomena as given by Jordan (2023), he or she incorporates this matter.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

****

RESULTS AND DISCUSSIONS

This chapter intends to present the summary of the research study, the findings, insights drawn from the findings, and the recommendations arrived at by the researcher.

This qualitative research was conducted to determine the experiences of teachers in the implementation of Math activities in enhancing numeracy skills as basis for improvement program. The participants of the study were the Seven (7) teachers teaching Mathematics from Kinder to Grade 6 and One (1) principal of Paaralan ng Buhay ng Don Domingo Granada, Schools District of Nueva Valencia North, Schools Division of Guimaras during the school year, 2023-2024.

The selection of participants used was total population.

The study used a phenomenological research design and a qualitative research methodology that included in-depth interviews. The schedule for interviews prepared by the researcher was used to collect data, and participants granted permission for documentation. A panel of experts validated the questionnaire's content in line with the standards provided given by Fraenkel and Wallen (2007) for the validity of questions.

Comments and suggestions of the panel of validators regarding the items in the interview schedule were considered and incorporated and come up with the final interview schedule. After the interview, the researcher consolidated all the collected data.

Thematic analysis was used to analyze and interpret data.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Based on the information gathered during the in-depth interview the teachers' experiences in the implementation of MAENS project were improve learners' numeracy skills, enjoying while using interactive games, and presentation of varied approaches.

Based on the information gathered during the in-depth interview, the challenges were insufficient time, learners' lack of interest to study, and lack of financial resources.

Based on the information gathered during the in-depth interview on how to manage the challenges they encountered in the implementation of Project MAENS, the emerging themes were: management of time, follow-up lessons at home by parents, and provisions of technical assistance.

An improvement program was proposed to address the challenges encountered by the teachers in the implementation of Math Activities in Enhancing Numeracy Skills (MAENS) project.

Based on the findings of the study, the following insights were drawn:

Teachers' experiences served as their driving forces to sustain the quality of teaching among learners and drive them towards the goal of helping them to learn and familiarize the basic skills and knowledge used in teaching mathematics on a specific period.

Mastery of teaching promotes a deeper understanding of Mathematics by encouraging learners to think critically and solve problems independently with modern instructional resources.

Teachers' expertise in crucial for involving learners in purposeful and efficient mathematical activities in enhancing their numeracy skills within the classroom fostering the

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

development of profound comprehension of Mathematics through financial support from the government.

CONCLUSION

The following were the recommendations based on the results of the study.

School heads and teachers may help improve and assist their level of understanding by adding additional time for mathematics as a subject.

Teachers may use varied teaching strategies. This may help them teach learners with different learning styles or approaches.

Establishing communication and connections among stakeholders is a wearying task for teachers but doing so means seeking their participation to the project, feedback, and collaboration to ensure that the program will be properly implemented.

School heads may continue guiding and coaching their mathematics teachers to sustain the full implementation of the program.

School heads may maintain equal consideration and treatment of teachers regardless of their subject taught and grade level assignment.

Similar study may be conducted in other areas using different variables which are not covered in the present study to discover more significant results that would broaden the concepts of project MAENS.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

****

References

Asio, J. M. R., & Jimenez, E. C. (2020). Effect of Remediation Activities on Grade 5 Pupils' Academic Performance in Technology and Livelihood Education (TLE). Pedagogical Research, 5(4), em0075. https://doi.org/10.29333/pr/8464.

Baker, J. (2023). 6 Best Teaching Strategies for 2023. Splash Learn. Retrieved on February 25, 2024, from https://www.splashlearn.com.

Bennett, G. et al., (2013). Learner and Teacher perception on difficulties in learning and teaching mathematics: Some implications. Department of Education. University of Calicut.

Benson, M. N. (2019). 9 Trusted Math Intervention Programs to Help Your Child. Prodigy Education. Retrieved on January 3, 2024, from https://www.prodigygame.com.

Berlamino, N., et al., (2018). Numeracy Level of Non-Numerate Learners Through Enhanced Mathematics Learning Kits.

Billet, R. (2022). Learning Mathematics in a Second Language: Some cross-cultural issues: For the Learning of Mathematics.

Cabigao, E. J. (2020). Republic of the Philippines, Bulacan State University Sarmiento Campus College of Education. San Jose Del Monte City.

Carmines, M. and Zeller, H. (2021). Learning Math is Fun. International Journal of Education 2(3), 22-25.

****

****

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Childhood Education International (2020). Internal Journal of Education. https://childeduinternatioal.com. Date retrieved, September 30, 2023.

Cicerchia, B. (2020). Numeracy and Migrant students: A case study of secondary level mathematics education in Norway.

Clark, J. and Page o. (2016). Differentials in Mathematics Achievement Among Eight Grade Students in Malaysia. International Journal of Science and Mathematics education (6(3), 123-134.

Clerkin, B. & Gilligan, H. (2018). Numeracy level 0f non- numerates with parental involvement at home. https://bitly.ws/wiAt. Date retrieved August 29, 2023.

DepEd Order No. 53, s. 2023. Approval and Implementation of the 2013 DepEd Rationalization Program. Manila, Philippines.

Elkhuizen, B. (2023). The 10 most important benefits of time management. Retrieved on February 12, 2024, from https://www.bakkerelkhuizen.com.

Encarta Dictionary (2020). ALL PC Worlds. Allpcworlds.com. All Rights Reserved.

Finlay, H. (2013). A phenomenological analysis of the views on Co-teaching applications in the inclusion classroom, educational sciences: Theory and Practice.

Fraenkel, J. and Wallen, N. (2007). How to design and evaluate research in education. McGrawhill, an imprint of the McGraw Hill Companies, Inc.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Gafoor, A. K. and Kurukkan, A, (2015). Learner and Teacher Perception on Difficulties in Learning and Teaching Mathematics: Some Implications. Department of Education, University of Calicut, India.

Galanes, D. R. (2013). E-learning in the 21st Century: A framework for research and practices. London: Routledge/Falmer.

Garg, D. (2017). Building the Numeracy Skills of Undergraduate and elementary students.

Ginsberg. K. L. (2016). Numeracy Level and Its Importance. Scribbr. https://bitly.ws./xmMi.

Guhi, N. (2019). The Level of Numeracy Understanding of Learners: A case study.

Gyankosh, E. (2023). Approaches and Techniques of Teaching Mathematics. eGyankos. Retrieved on February 12, 2024, from https://www.egyankosh,ac,in.bitstream.unit-2.

Hiva, E. T. (2022). Technical Assistance of Teachers in the Face of New Normal in Education. Sun Star Pampanga. Browse Publication. Philippines.

Indeed Editorial Team (2023). Research -Based Math Teaching Strategies. Tulane University, New Orleans, Louisiana.

Jordan, E. (2023). Management of Integrated School

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Operations its Challenges and Opportunities among

Integrated Schools as basis for Policy Recommendation.

Unpublished master's Thesis. PHINMA University of Iloilo Graduate School. Iloilo City.

Kangan Institute (2021). The Importance of Literacy and Numeracy Skills. Scribber. https://bitly.ws.x25w.

Kasran, Siti & Toran, Hasnah. (2012). Issues and Trends in

Remedial Education: What Do the Teachers Say? Procedia - Social and Behavioral Sciences. 47. 10.1016/j.sbspro.2012.06.869.

Kilpartick, H. (2015). K-12 Mathematics Education in Both Male and Female Leaners. https://www.com.mathed. Date retrieved October 1, 2023.

Langoban, S. (2020). Numeracy for All learners. Scribbr, https://bitly.ws.w2vj.

Layug, Z. et al., (2021). Teachers Intervention in Improving Numeracy Skills of Grade 7 Students in Baquio City National High School, Baquio City, Philippines.

Le, D. (2023). How To Study When You're Show on Time.

Pocket Prep. Retrieved on February 12, 2024, from https://www.pocket.prep.ca.default.files.assets.com.

Lieberman, D. A. (2020). What can we learn from playing

interactive games? International Journal of Education

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

2(2). University of California, Santa Barbara.

Lin, M. et al., (2014). Strategies for Success in Mathematics. Mathematics Study Guide. Tutoring and Testing Center. NOVA Southeastern University, Florida.

Linkletter, D. (2023). Why so many students struggle with Math. Guide Power Learning Centers.

Loveless, B. (2018). Listening Skills. Improving your Listening Skills. Education Corner. Retrieved on February 27, 2024, from https://www. education.corner.com.

Meriam Webster Dictionary, (2022). New Edition. Your Guide to Precise Definition. Philippines.

Miguel, S. (2017). Needs analysis of elementary teachers in the school division of Quezon city. (Unpublished master's thesis). Centro Escolar University, Philippines.

Montalban, A.V. (2020). Reading difficulties of grade 6 pupils of a public schools in Manila. (Unpublished master's thesis). University of the East, Philippines.

Montano, J. M. (2021). A comprehensive Overview of Inquiry-Based Learning Approaches, Methods, Techniques and Their Effectiveness in Teaching. Retrieved on January 30, 2024, from https://www.scribd.com.inquiry-approach.com.

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Pew Research Center (2025). Impact of Lack of Financial Support. SciSpace by typeset. Retrieved on January 6, 2024, from https://typeset.io.question.impact-of-lack-of-financial-resources.com.

Ratnar, V, (2015). What is Cognitive Learning Theory? University of Phoenix.

Rai & Penjor (2020). The Impact of Remedial Class on Students' Learning Achievement, Contemporary Education and Teaching Research

Regional Memorandum No. 827, s. 2022. Enhanced Regional Unified Numeracy Test (E-RUNT). DepEd Region VI, Duran Street, Iloilo City.

Shoefeld, A. (2015). What canon line course components teacher about instruction and learning? Journal of International Psychology.

Spiller, V. (2017). Mathematics processes. Ministry of Education, Regina SK Canada S4P 4V9.

Subia, G. et al., (2018). Attitude and Performance in Mathematics 1 of Bachelor of Elementary Education Students: A Correlational Analysis.

Tan, E. S. and Jansz, J. (2018). The Game Experiment. Elsevier. Retrieved on February 12, 2024, from https://www.gameexperiment.elsevier.com.

Wallace Foundation (2022). Workbook E: Conduct In-Depth Interviews. https://wallacefoundation.com.org.documents

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue III
February 2024
Available online at https://www.instabrightgazette.com

Wehmeyer. F. (2018). Difficulties of Grade 6 learners in mathematics. Progress report.

Weiten, J. (2013). The Importance of Strong Mathematical Foundation. University of Akron Main Campus.

Xiao, F. (2021). Why is math important? 9 reasons why math skills improve quality life. https://www.prodigygame.com Date retrieved August 19, 2023.

YassiKartika et al., (2019). Improving Math Creative Thinking Ability by Using Math Adventure Educational Game as an Interactive Media. https://library.down-syndrome.org/en- us/research-practice/12/1/teaching-numeracy.