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

****

CONTEXTUALIZED MATHEMATICS REMEDIAL PROGRAMS: THEIR IMPLEMENTATION AND CHALLENGES AS BASES FOR ENHANCEMENT RECOMMENDATION

CHARRY B. PANIMBANGAN
TEACHER I
Bacan Elementary School
charry.panimbangan@deped.gov.ph

ABSTRACT

The descriptive-qualitative study aimed to determine the different contextualized remedial programs in Mathematics, their implementation, and challenges as bases for enhancement recommendation. It was found out that the different contextualized remedial programs in Mathematics included: To Upgrade Performance of Learners (TUPOL), MATHsaya, Build-up the Students Learning Losses in Mathematics (BTS-2L in Math), Bulig Isip para sa mga Bata, and Project Frequent Individualized Remediation for Excellence (FIRE). It was also found out that those were implemented using indigenous materials, multi-media, practices, and provision of prizes, and through readiness of teachers and involvement of stakeholders. Challenges encountered were lack of time, lack of resources, learners' undesirable behavior and absenteeism, and insufficient learning materials. Teachers' ways of managing the challenges were proper management of time, provision of stakeholders' support, patience and provision of awards and recognition, and production of learning materials.

****

****

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

****

Keywords: *Contextualized Mathematics Remedial Programs, Implementation, Challenges, Enhancement Recommendation*

INTRODUCTION

Mathematics is an important component of the school curriculum. Daily routines at home, in school, or in the community such as measuring, telling time, and counting money are all based on Mathematics. Indeed, people cannot detach Mathematics in their daily living.

On the other hand, Mathematics has become a big concern of our country and educators. Many learners find it difficult and they consider it as a very challenging subject. It has also bothered people badly because of the low understanding level accompanied by discouraging achievements of the pupils who are taking Mathematics subject. It cannot be denied that most prospective college learners are unprepared for higher Mathematics.

Once a child begins to feel lost in Math, it can be hard to catch up without intervention. They are more likely to start tuning out during Math class or internalize the idea that they're just bad at Math, making it even harder to keep up.

Indeed, Math skills are necessary in everyday life. Inner monologue full of Math confidence with the right

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

program is also needed. A program is great for finding new ways to approach complicated material while providing extra practice. A good program will teach learners at their current level regardless of grade.

Mathematics intervention program helps the child tackle the Math topics they're struggling to understand. Some Math intervention programs are done at school, one-on-one, in small groups or as a part of the school day. But many of these programs at home can also be used.

Most programs include an assessment to determine the needs of the child. Personalized instruction and progress tracking are organized. Programs follow state standards while helping your child grasp basic facts and important Math concepts (Prodigy, 2021).

Cabatuan is one performing town in terms of school competition in Mathematics. Various competitions such as the Mathematics Trainers Association of the Philippines (MTAP), Stat Quiz, Mathematics Trainers Guild (MTG), Math Olympiad, and invitational interschool Math quiz are victorious champions for learners, teachers, and schools. Teachers are provided with various trainings and seminars in which the application of knowledge is strengthened. Such programs implemented at school greatly help not only in the academic status of Cabatuan but also the influence of the different programs, and the encouragement to other schools to develop and provide effective Mathematics program.

The specific program being implemented has series of achievements that make the program an outstanding success. It includes a clear description of the program's activities and

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

goals, a brief history of the program, evidence of its effectiveness, and statements from participants about its impact.

Being part of the Mathematics educative community in the Department of Education, the researcher becomes mindful of the needs of the children that she is dealing with. The researcher considers how to provide ways to let learners learn in ways that are easy to understand, and share to other teachers' insights on the effectiveness of teaching by utilizing the different remedial programs in Mathematics.

MATERIALS AND METHODS

Research Methodology

This chapter presents the research method, research design, participants of the study, data-gathering procedure, research instrument, and data analysis used in the study. The purpose of this study was to determine the different contextualized remedial programs in Mathematics, their implementation, and challenges as bases for enhancement recommendation selected schools in the District of Cabatuan II, Cabatuan, Iloilo during the school year 2022-2023.

Research Method

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

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

During the interview, the interviewer and interviewee sat together in a distance and discussed answers to series of questions about a certain issue. The aim was to get the main or the necessary views of the participants in a certain issue in a social context through the responses of the participants to the questions.

Research Design

The study used phenomenological research design. Phenomenology was considered a philosophical approach to undertake qualitative research. The goal of phenomenology was to understand how others view the world, and how that view might vary from commonly held views by focusing on a person's subjective interpretations of what he or she experienced. Phenomenology was done by interviewing the subjects to learn their impressions, and was frequently used in such fields as psychology, sociology, and social work.

According to Smith (2013), phenomenology is the study of structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, its being directed toward something, as it is an experience of or about some objects. An experience is directed toward an object by virtue of its content or meaning (which represents the object) together with appropriate enabling conditions.

Participants of the Study

Participants of the study were all the five (5) remedial teachers handling the remedial program in Mathematics in selected schools in the Municipality of Cabatuan.

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

Sampling Design

Purposive sampling design was used in the study. This was used to select participants from the population according to the purpose of the study.

According to Fraenkel and Wallen (2007), a purposive sample is a non-probability sample that is selected based on the characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling.

Research Instrument

The research instrument utilized in the study was a researcher-made interview schedule.

The interview schedule had four (4) questions focusing on the purpose of study.

Voice and video recorders were also used for data gathering and documentation depending upon the permission of the participants.

Validity of the Research Instrument

Prior to the determination of the validity of the interview schedule made by the researcher, the adviser, Dean of the Graduate School, and the panel of jurors who were considered for their expertise in the field of research, testing and assessment, and English, were requested to validate each question for review and modification.

Validity refers to appropriateness, meaningfulness, correctness, and usefulness of inferences that a researcher makes. In content-related evidence of validity, the content and

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

format must be consistent with the definition of variables and sample of subject to be measured and is also helpful in validating the items in the questionnaire (Fraenkel & Wallen, 2007).

Comments, corrections, and suggestions of the panel of validators regarding the interview schedule were considered using the appropriate form of Good and Scates (Appendix C).

Data Gathering Procedures

Permits from the adviser, Dean of the Graduate School, Office of the Schools Division Superintendent, Office of the District Supervisors, School Heads, and individual participants were obtained to allow the researcher to conduct the study.

The researcher personally went to the schools, community or place convenient on the part of the participants to conduct the interview. The researcher encouraged first the participants to sign a waiver or permission relative to the conduct of the study.

Minimum health protocols mandated by the Inter-Agency Task Force (IATF), Department of Health (DOH) guidelines amidst the pandemic, DepEd Orders on the health protocols, Local Government Units and the Barangay health protocols were strictly observed and followed during the conduct of the study.

Using in-depth interviews, voice and video recorder were provided to completely capture the interviewee's words. The researcher consolidated all of the collected data after series of interviews.

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

Data Analyses

The information gathered was analyzed using thematic approach.

Thematic analysis is the process of identifying patterns or themes within qualitative data. According to Maguire and Delahunt (2017), the aims of a thematic analysis is to identify themes, such as patterns in the data that are important or interesting, and to use these themes to address the research or say something about an issue. The analysis involves summarizing, analyzing, and interpreting the data gathered and making sense of it.

RESULTS AND DISCUSSIONS

The study aimed to determine the different contextualized remedial programs in Mathematics in the Municipality of Cabatuan, their implementation, and challenges as bases for enhancement recommendation during the school year 2022-2023.

The research method utilized in the study was the qualitative method using in-depth interviews and the research design was phenomenology.

The participants of the study were the five (5) remedial program coordinators in Mathematics in the Municipality of Cabatuan for the school year 2022-2023.

A researcher-made interview schedule was used as an instrument to gather data.

Voice and video recorders were also used for data gathering and documentation depending upon the permission of the participants.

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

The questionnaire underwent content validation by the panel of experts. The Criteria for the Content Validation by Fraenkel and Wallen (2007) was used to determine the validity of the questions in the interview schedule. The researcher considered all comments and suggestions relative to the validation of the tool. Permits were prepared to allow the researcher to start conducting the in-depth interviews.

Permits from the adviser, dean of the graduate school, office of the schools division superintendent, school head, and individual participants were obtained to allow the researcher to conduct the study. The researcher personally went to the schools, community or place convenient on the part of the participants to conduct the interview.

Minimum health protocols mandated by the Inter-Agency Task Force (IATF), Department of Health (DOH) guidelines amidst the pandemic, DepEd Orders on the Health protocols, Local Government Units and the Barangay health protocols were strictly observed and followed during the conduct of the study.

The researcher consolidated all collected data after series of interviews. The information gathered was analyzed and interpreted using thematic approach.

Based on the results of the in-depth interviews with the participants, the different contextualized remedial programs in Mathematics were To Upgrade Performance of Learners (TUPOL), MATHsaya, Build-up the Students Learning Losses in Mathematics (BTS-2L in Math),

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

Bulig Isip para sa mga Bata, and Project Frequent Individualized Remediation for Excellence (FIRE).

It was also found out that the implementation of different contextualized remedial programs in Mathematics in the different schools were the utilization of indigenous materials, multi-media, practices, and provision of prizes, readiness of teachers, and involvement of stakeholders.

In addition, it was found out that the challenges encountered in the implementation of different contextualized remedial programs in Mathematics were lack of time, lack of resources, learners' undesirable behavior and absenteeism, and insufficient learning materials.

Based on the results of the in-depth interviews with the participants, it was found out that teachers' ways in managing challenges encountered in the implementation of contextualized remedial program in Mathematics were proper management of time, provision of stakeholders' support, patience and provision of awards and recognition, and production of learning materials.

The enhancement recommendation was proposed to address the experiences encountered by teachers in the integration of digital technology in teaching Mathematics as identified during the conduct of in-depth interviews to the participants of the study.

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

****

CONCLUSION

Based on the findings and insights, the following recommendations were advanced:

Mathematics remedial programs should be strengthened in order to cater the needs of every learner who have difficulty in numeracy.

Parents should closely monitor their children's progress and behavior toward attending remedial classes.

The local government units and the Department of Education should work hand-in-hand in planning and implementing strategies that may help create good family climate at home so that learners won't lose the track and not engaged in other activities that may interfere their interest and motivation in their studies.

School administrators are encouraged to consult parents about problems faced by learners and be involved in addressing difficulties encountered by the parents and learners at home since most of the responsibilities of a teacher are now passed on to parents.

Schools may conduct webinars to equip the learners with the knowledge and skills to handle the various problems they encounter in remedial classes.

The policies recommended may be considered for further improvement in consultation with the Department of Education Regional, Provincial, Division, and District Offices.

Similar study can be conducted in quantitative design supported by qualitative information in order to come up with conclusive and more valid results.

****

****

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

****

References

Adams, C. (2011). The Effects of a Remedial Math Intervention on Standardized Test Scores in Georgia Middle Schools. A Published Doctoral Dissertation. Liberty University, Lynchburg, VA July 2011.

Andriotis, N. (2017). Contextualized Learning: Teaching made highly effective! Downloaded from https://www.efrontlearning.com/blog/2017/06/ contextualized-learning-effective-elearning.html on September 7, 2022.

Bahr, P. R. (2008). Does mathematics remediation work?: A comparative analysis of academic attainment among community college students. Research in Higher Education, 49(5), 420-450. Retrieved from http://bit.ly/2WspyYw. January 23, 2023

Berns, R.G. & Erickson, P.M. (2005) Contextual teaching and learning: Preparing student for the new economy. Retrieved from http://www.cord.org/uploadedfiles? On September 22, 2021.

Bettinger, E. & Bridget T.L. (2007). Institutional Responses to Reduce Inequalities in College Outcomes: Remedial and Developmental Courses in Higher Education. In Economic Inequality and Higher Education: Access, Persistence, and Success, ed. Stacy Dickert-Conlin and Ross Rubenstein, 69-100. New York: Russell Sage Foundation.

Bonganciso, R. (2016). Effects of contextualization on the reading comprehension performance of Filipino learners. ASIA Pacific Higher Education Research Journal, Volume 3, Issue No.1.

****

****

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

Bringas, H. A. (2014). Localization contextualization-slide share. Retrieved July 30, 2014, from www.slideshare.net/lenferndz/localization-contextualization

Bull, H. (2009). Identifying math's anxiety in student nurses and focusing remedial work. Journal of Further and Higher Education, 33(1), 71-81. Retrieved from http://bit.ly/2PRMCNV. February 5, 2023

Cambridge Dictionary, (2022). Downloaded from https:// dictionary.cambridge.org/us/dictionary/english/ enhancement on August 23, 2022.

Capuyan, D. et al. (2019). Mathematics Remedial Program for Elementary Learners in Cebu City, Philippines. *American Research Journal of Humanities Social Science (ARJHSS)*, E-ISSN: 2378-702X Volume-02, Issue-05, pp-16-23 May-2019 www.arjhss.com.

Census of Population, (2020). Region VI (Western Visayas). *Total Population by Province, City, Municipality and Barangay*. PSA. Retrieved 8 July 2021.

Cubillas, T. (2018). Development and Validation of Strategic Intervention Materials (SIMs) in Teaching Elementary English 4: A Content Validation. Vol. 08, Issue, 06, pp.21252-21259, June, 2018. Retrieved from http://www.journalijdr.com on May 16, 2018.

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

De Jong, E. J. & Harper, C. A. (2005). Preparing Mainstream Teachers for English Language Learners: Is Being a Good Teacher Good Enough? Teacher Education Quarterly, 32, 101-124.

Driscoll, M. (2005). Psychology of Learning for Instruction.

Ediger, M. (2010). Teaching mathematics in elementary schools. Discovery Publishing House. Retrieved from http://bit.ly/2JpVgSu. March 8, 2023

Emboltura, A. D. (2020). Different Remediation Programs in the Schools Division of Passi City. An Unpublished Master's Thesis. University of Iloilo. PHINMA Education Network, Iloilo City.

Felder, R. & Spurlin, J.E. (2005). Applications, reliability and validity of the Index of Learning Styles. International Journal of Engineering Education. 21. 103-112.

Fraenkel, J. & Wallen, N. E. (2007). How to Design and Evaluate Research in Education. McGraw-Hill Companies, Inc.

Gersten, R. et al. (2009). A meta-analysis of mathematics instructional interventions for students with learning dis-abilities: Technical report. Los Alamitos, CA: Instructional Research Group. Available from http://www.inresg.org. January 9, 2023

Ibeneme, O.T. (2000). Provision and utilization of instructional equipment for teaching and learning science and technology. Issues in Educational Journal, 1.

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

IPL, 2022. Downloaded from https://www.ipl.org/essay/ Importance-Of-Contextualization-In-Teaching-FCMH7E2SU on August 21, 2022.

Johnson, E. B. (2002). Contextual teaching and learning: What it is and why it's here to stay. Thousand oaks, CA: Corwin.

Jordan, N. et al. (2007). Predicting First - Grade Math Achievement from Developmental Number Sense Trajectories. Learning Disabilities Research & Practice. 22.

Lagerlof, J.N.M. & Seltzer, A. J. (2022). Effects of Remedial Mathematics on the Learning of Economics. Downloaded from https://link. springer. com/ referenceworkentry/10.1007/978-1-4419-1428-6_1638 on September 7, 2022.

Maguire, M. & Delahunt, B. (2017). Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. AISHE-J, 9, 3351. http://ojs. aishe.org/index.php/aishe-j/article/view/3354.

Mazzeo, C., Rab, S.Y., & Alssid, J.L. (2003). Building bridges to college and careers: Contextualized basic skills programs at community colleges. Brooklyn, NY: Workforce Strategy Center.

MediaWiki, (2015). Downloaded from https://www.mediawiki. org/wiki/Release notes on September 5, 2022.

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

Meijnen, G. W., Lagerweij, N. W., & de Jong, P. F. (2003). Instruction characteristics and cognitive achievement of young children in elementary schools. School Effectiveness and School Improvement, 14(2), 159-187. Retrieved from http://bit.ly/2VODnDC.

Nevada Education Reform Act (NERA), (2005). List of Effective Remedial Programs. *Legislative Committee on Education.* Downloaded from https://www.leg.state.nv.us/ Division/fiscal/leBeape/LERP2005.pdf on October 9, 2019.

Oluwagbohunmi, M.F. & Abdu-Raheem, B.O. (2014). Sandwich undergraduates' problem of improvisation of instructional materials in social studies: The case of Ekiti State University. *Journal of International Academic Research for Multidisciplinary*, 1(12), 824-831.

Oxford Languages, (2022).

Ottenbreit-Leftwich, A. T. (2007*).* Expert technology-using teachers: Visions, strategies, and development. Unpublished dissertation. Purdue University, West Lafayette.

Papaieronymou, I. (2009). Recommended Knowledge of Probability for Secondary Mathematics Teachers. Proceedings from Proceedings of CERME 6, Lyon, France.

Perin, D. (2011). Facilitating Student Learning Through Contextualization. Community College Research Center. Teachers College, Columbia University. Working Paper No.29 Available from://ccrc.tc.columbia.edu.

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

Prodigy, (2021). Top 9 Math Intervention Programs and How They Can Help. Downloaded from https://www.prodigygame. com/main-en/blog/math-intervention-programs/ on September 7, 2022.

Puchner, L.D. & Taylor, A. R. (2006). Teaching & Teacher Education. An International Journal of Research and Studies.

Ruthven, K., Deaney, R., & Hennessy, S. (2009). Using graphing software to teach about algebraic forms: A study of technology-supported practice in secondary-school mathematics. Educational studies in mathematics.

Seethaler, P. M., Fuchs, L. S., Star, J. R., & Bryant, J. (2011). The cognitive predictors of computational skill with whole versus rational numbers: An exploratory study. Learning and Individual Differences, *21*(5), 536–542. https://doi.org/10.1016/j.lindif.2011.05.002. March 10, 2023.

Smith, S. (2013). Determining Sample Size: How to Ensure You Get the Correct Sample Size. E-Book (c) Qualtrics Online Sample.

Suganob, J.D., & Oliva, E.R.A. (2019). Exploring the students' experience in learning literature: challenges of contextualization. International Journal of Multidisciplinary Research (IJMR), Vol.7 Issue. 12 EPRA eprajournals.com.

Stronge, J. H. (2018). Qualities of effective teachers. ASCD.

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

Tomlinson, C. A. et al. (2003). Differentiating Instruction in Response to Students' Readiness, Interest and Learning Profile in Academically Diverse Classrooms: A Review of Literature. Journal for the Education of Gifted. Retrieved from http://journals.sagepub.com/ doi/abs/. April 7, 2023.

Waycaster, P. (2001). A Study of Success in Developmental Mathematics Classes. Inquiry (ERIC).