

The effectiveness of the 8-week learning recovery curriculum in improving the numeracy skills of Grade 1 learners

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Abstract: Numeracy has become a significant concern in primary education, as it is a fundamental skill required in education. The Department of Education's Regional Office V implemented the 8-Week Learning Recovery Curriculum (LRC) in Region V to improve numeracy skills among Grade 1 learners. However, there is only a little body of knowledge that exists as to the effectiveness of the program in Sorsogon City. To investigate this, the study has surveyed six (6) teachers which were selected through stratified sampling method based on their geographical locations. A mixed-method research design was utilized employing a survey-questionnaire, interview, and a 5-point Likert Scale to gather the necessary data. The 8-week Learning Recovery Curriculum is highly effective in improving the numeracy skills of Grade 1 learners. There were identified facilitating factors in program implementation which include teachers' commitment, understanding, and appropriate assessment tools while the identified hindering factors include lack of parental support, limited materials, learners' readiness, teachers' knowledge, ineffective training, and limited time allotment. Teachers implement the program through various strategies, varied classroom activities, and continuous assessment of learners' skills. High level of interest in the program is evident among Grade 1 learners which emphasize that readiness and attitudes towards learning are crucial during the program implementation. These findings highlighted the importance of parental orientation, teachers' commitment, understanding, assessment tools, teaching strategies, and training in facilitating the implementation of the 8-week Learning Recovery Curriculum. Recommendations include parent conferences, appropriate instructional materials, school administration support, collaboration, and professional development.

Keywords: 8-Week Learning Recovery Curriculum, Curriculum Effectiveness, Numeracy Skills, Grade I Learners, Intervention, Facilitating And Hindering Factors

Date Submitted: May 16, 2025

Date Accepted: May 28, 2025

Date Published: June 11, 2025

INTRODUCTION

With programs such as the Department of school's 8-Week Learning Recovery Curriculum, numeracy is a fundamental skill in primary school today. High school levels of school dropout and adult education in a technology-driven society where one must comprehend the relationship between numbers and be capable of handling material objects are reliant on numeracy. Low numeracy skill has an economic impact; 58.6% of American adults possess low numeracy skill. Numeracy is a hierarchical quality demanded by each individual in society to perform rightly in their life. Formal learning settings have earlier been found to make children more capable of

perceiving numerical relationships and operations. Targeting such key areas of learning as languages, mathematics, science, and social studies, the K–12 Program has been implemented in the Philippines to contribute to improving numeracy skills of kindergarten learners. Targeting enhancement of the numeracy program and numeracy skills of kindergarten learners, the Early Language, Literacy, and Numeracy Program (ELLN) seeks to prepare kindergarten to grade three teachers and instructional leaders with literacy and numeracy skills.

The COVID-19 pandemic greatly interrupted Philippine basic education, leading to learning loss and gaps. Most especially among vulnerable groups of students, the transition from face-to-face to distance learning diminished the levels of learning. The pandemic also showed the weaknesses in the education system, which low PISA 2022 scores followed. With fewer than a quarter of children meeting minimum competency levels, the Philippines ranks among the world's lowest performers in science, reading, and mathematics. The K–12 curriculum, which prioritizes basic literacy and numeracy for disadvantaged learners, is one of the government's programs where numeracy and literacy are being developed. Region V is addressed by the MATATAG Agenda with the 8-Week Learning Recovery Curriculum—LRC being implemented by the Department of Education for an enhanced quality of basic education.

Problem statement

This study determined the effectiveness of the 8-Week Learning Recovery Curriculum in Improving the Numeracy Skills of Grade 1 Learners. Specifically, this study answered the following questions:

1. What is the level of effectiveness of 8-Week Learning Recovery Curriculum in improving the numeracy skills of Grade 1 learners?
2. What are the facilitating and hindering factors in the implementation of the 8-Week Learning Recovery Curriculum in improving the numeracy skills of Grade 1 learners?
3. How do teachers implement the 8-Week Learning Recovery Curriculum in improving the numeracy skills of Grade 1 learners?
4. What is the level of interest of Grade 1 learners in dealing with the 8-Week Learning Recovery Curriculum?
5. What intervention activities can be proposed to strengthen the implementation of the Learning Recovery Curriculum as a numeracy intervention program?

LITERATURE REVIEW

Young students have to acquire the skills via numeracy, and the COVID-19 pandemic has therefore affected learning recovery in the Latin America and Caribbean. Learning recovery and strengthening resilience under the RAPID Framework for Learning Recovery & Acceleration aim to accelerate learning recovery. While the CENF framework emphasizes the "mathematics knowledge and skills" factor, the Common European Numeracy Framework (2022) emphasizes adult numeracy instruction. The National Learning Recovery Program (NLRP) aims to recover learning deficiencies and consolidate learning gains in the Philippines. Policy measures must address beyond classroom and curriculum programs to further enhance Filipino children's overall arithmetic capacity. Study habits, attitudes, self-concept, and learning style influence one's arithmetic ability.

METHODOLOGY

Research design

The research employed the mixed-method research method to determine the effectiveness of the 8-Week Learning Recovery Curriculum in increasing Grade 1 students' numeracy. In this regard, a quantitative data was collected through the 5-point Likert Scale, frequency, and rank. This encompasses the level of interest Grade 1 students have in dealing with the 8-Week Learning Recovery Curriculum (LRC), the facilitating and obstructive factors, and the level of success of the curricula in enhancing the numeracy skills of Grade 1 students. On the other hand, qualitative data were obtained through the survey-questionnaire and interviews. Instructors also utilized a qualitative strategy to implement the 8-Week Learning Recovery Curriculum to improve the numeracy level of Grade 1 pupils.

The primary tool employed by the researcher in collecting the information required in the study was a researcher-constructed questionnaire. Besides this, interview was conducted to obtain insight from teacher-responders on the utilization of the 8-Week Learning Recovery Curriculum (LRC). The objective was to gather complete descriptions of the processes and methodologies adopted.

Participants of the study

The key informants of data were the Grade 1 teachers in the four respondent schools namely: (1) Bacon West Central School to represent the central zone; (2) Sto. Niño Integrated School to represent the coastal schools; (3) San Roque Elementary School to represent the schools along the highway; and (4) Osiao Paglingap Elementary School to represent the upland schools. There were six (6) respondent teachers from the four (4) schools to the following extent: 2 were from Bacon West Central School; 2 from Sto. Niño Integrated School; 1 from San Roque Elementary School; and 1 from Osiao Paglingap Elementary School.

Instrument of the study

The study used a researcher-developed questionnaire and open-ended interview guide to gather feedback from teacher-participants on the utilization of the 8-Week Learning Recovery Curriculum. The questionnaire was submitted to the research adviser for suggestions and input, and after revision and finalization, it was piloted and validated by experts in test construction and content to determine items to be added to the questionnaire or checklist. Interviews were conducted based on survey responses and evaluations.

Procedure

The researcher conducted the dry run with Grade I teachers at Bacon West to check and confirm the research instruments. After the instruments had been perfected, the researcher proceeded to gather data. They obtained the permission of the Schools Division of Sorsogon City, Public Schools District Supervisors, and school heads of four schools: Bacon West Central School, Sto. Niño Integrated School, San Roque Elementary School, and Osiao Paglingap Elementary School. Researchers sent a survey-questionnaire to Grade 1 teachers and had three days to answer. Following the analysis of the answers, participants were selected for a semi-structured interview.

Statistical treatment, descriptive statistical tools, and appropriate interpretation methods were employed to analyze and interpret the data with the help of a statistician.

Data analysis

Different statistical measures were used in the research to assist one in comprehending and analyzing the data that was researched. The mean weight was used in Problem 1 to ascertain, based on teacher ratings, the effectiveness of the 8-Week Learning Recovery Curriculum in building numeracy skills among Grade I students. At a scale of 4.50–5.00 for Very Highly Effective, 3.50–4.49 for Very Effective, 2.50–3.49 for Moderately Effective, 1.50–2.49 for Slightly Effective, and 1.00–1.49 for Not at least Effective, the effectiveness was rated.

Particularly in answering the facilitation of Grade I learners' numeracy skills, rating and frequency count were employed to determine the facilitators and barriers to the implementation of the 8-Week Learning Recovery Curriculum, thereby responding to Problem 2.

Frequency count was utilized again in the instance of Problem 3, which was aimed at how teachers deliver the curriculum to improve numeracy competencies. Finally, weighted mean was applied to ascertain the extent of interest Grade I students exhibited in interacting with the 8-Week Learning Recovery Curriculum. On a scale of 4.50–5.00, it was scored as Very Highly Interested, 3.50–4.49 as Very Interested, 2.50–3.49 as Moderately Interested, 1.50–2.49 as Slightly Interested, and 1.00–1.49 as Not at all Interested.

Ethical consideration

Researchers made sure that ethical issues were strictly followed during the trial. Informed consent of every participant was obtained prior to their participation. For as much as the study's purpose, their voluntary involvement, and their freedom to withdraw at any time without punishment, they were completely informed. By keeping all gathered information in strict possession and assigning codes rather than actual names, anonymity and confidentiality were preserved. In the course of gathering the data, researchers also ensured none of the subjects underwent—physical, psychological, or emotional—any sort of injury.

FINDINGS AND DISCUSSIONS

This section presents the data gathered from respondents regarding the effectiveness of the 8-Week Learning Recovery Curriculum in improving Grade 1 students' numeracy skills. The study aims to assess the overall effectiveness of the program and learn its potential in addressing fundamental math skills and bridging learning gaps caused by previous learning disruptions.

Table 1

Level of effectiveness of 8-week learning recovery curriculum.

Indicators	Weighted mean	Interpretation
Parents' orientation about 8-Week Learning Recovery Curriculum is conducted before its implementation	4.67	Very Highly Effective
Objectives, purposes, aims and goals of 8-Week Learning Recovery Curriculum are met	4.50	Very Highly Effective
Teachers employ various teaching and learning strategies to meet the desired goals and objectives of 8-Week Learning Recovery Curriculum (LRC)	4.50	Very Highly Effective
Learners are given the opportunity to work on manipulatives, number charts, number cards and math games	4.50	Very Highly Effective
Teachers utilized the intended learning materials and followed the lesson map	4.50	Very Highly Effective
Teachers employ appropriate 8-Week Learning Recovery Curriculum assessment tools	4.33	Very Effective
The implementation of the program is achieved in accordance with the timetable set	4.17	Very Effective
The prescribed guidelines, rules and procedures are strictly followed	4.17	Very Effective
Teachers are fully supported by the school in implementing the Learning Recovery Curriculum without additional assignments or participation in activities that take them away from the classroom until the curriculum's completion	4.17	Very Effective
Teachers closely monitor the learner's progress during the LRC, creating a customized progress tracking record for additional materials and lesson adjustments, sourced from available worksheets or developed by them	4.17	Very Effective
The school head provides timely feedback and technical assistance to teachers as a result of the regular monitoring and evaluation for relevant and appropriate adjustments	4.00	Very Effective
Training and capacitation of teachers are conducted	3.83	Very Effective
Regular monitoring and supervision on the implementation of Learning Recovery Curriculum by the Education Program Supervisor	3.83	Very Effective
The school submits recommendations/insights to the Division Office for possible policy enhancement/amendment	3.67	Very Effective
Average	4.22	Very Effective

Table 2.1
Facilitating factors in the implementation of the 8-week learning recovery curriculum.

Indicators	Frequency	Rank
Teachers' and school's commitment in the implementation of the Learning Recovery Curriculum	6	2.5
Strong collaborative efforts between the teacher, school leader, parents and stakeholders	6	2.5
Learners interest on the activities prescribed in the Learning Recovery Curriculum	6	2.5
Parents' and learners' orientation on the implementation of Learning Recovery Curriculum	6	2.5
Teachers' understanding of the implementation process of the Learning Recovery Curriculum in the classroom level	5	6
Employment of the appropriate Learning Recovery Curriculum assessment tools	5	6
Support from the school administration by provision of learning materials and utilization of school facilities for the successful implementation of Learning Recovery Curriculum	5	6
Training and capacitation of program implementers	4	8
Employment of the appropriate teaching and learning strategies	3	9.5
Strict adherence to the prescribed guidelines, rules and procedures as stated in the memorandum	3	9.5

Table 2.2

Hindering factors in the implementation of the 8-week learning recovery curriculum.

Indicators	Frequency	Rank
Learners' readiness, attitude and behavior towards the 8-Week Learning Recovery Curriculum implementation	6	1
Limited supply and materials	5	2.5
Lack of parents' support and coordination with program implementers	5	2.5
Ineffective training and capacitation of teachers	4	4.5
Limited time allotment in the timetable of activities	4	4.5
Teachers limited knowledge on Learning Recovery Curriculum implementation	4	6

Table 3

Level of interest of Grade 1 learners in dealing with the 8-week learning recovery curriculum.

Lessons/Activities	Weighted Mean	Interpretation
Manipulative materials and learning activities inside the classroom	4.67	Very Highly Interested
Numbers-Counting Forward and backward	4.50	Very Highly Interested
Reading and writing numerals	4.50	Very Highly Interested
Representing numbers with objects	4.50	Very Highly Interested
Matching numerals and sets	4.50	Very Highly Interested
Ordering numerals	4.33	Very Interested
Understanding numbers	4.33	Very Interested
Addition of numbers from 1-digit to 2-digit numbers	4.33	Very Interested
Taking the pre and post assessments in Mathematics	4.17	Very Interested
Participation in the formative assessments and performance tasks	4.17	Very Interested
Comparing numbers with other numbers	4.00	Very Interested
Subtraction of numbers from 1-digit to 2-digit numbers	4.00	Very Interested
Average	4.33	Very Interested

DISCUSSION

Designed to target key math skills and bridge knowledge gaps resulting from prior educational disruption, the study assesses the success of an 8-Week Learning Recovery Curriculum (LRC) in Grade 1 schools. With a mean weighted score of 4.22 the program is highly effective. Some of the major indicators are orientation, objectives, ideas, and goals of parents, teachers using various teaching and learning approaches, students engaging in manipulatives, number charts, number cards, and mathematical games, teachers adhering to the rules established, teachers being fully supported by the school, teachers keeping very close track of progress, and the head of the school providing timely feedback and technical assistance. The study highlights the importance of assessment in learning and teaching since it helps in determining academic readiness, learning achievement, proficiency attainment, and results.

Adoption of the LRC is hindered by inadequate provision of resources, lack of parental support, inadequate training, minimal time allocation, and teachers' knowledge deficit. The instructors use group discussion, group assignment, and co-teaching methods among others in order to improve the numeracy levels of students in Grade 1. Grade 1 students' level of interest in

using the LRC is also looked into and is found highly interested in manipulative activities and learning activities. Conclusions can guide subsequent research on a wider range of educational populations and enhance technique and methods of early years mathematics instruction.

CONCLUSION

The research came up with most of its findings based on what one can conclude. Firstly, according to what their instructors indicated, the 8-Week Learning Recovery Curriculum was highly effective at enhancing Grade 1 students' numeracy. Secondly, commitment, teamwork, passion, and orientation of the parties involved supported the program to be effectively executed; however, some inhibiting aspects were found, like students' attitude, preparedness, or conduct towards the program. Third, teachers employed different instructional strategies, diverse classroom activities, and ongoing student numeracy testing to execute the curriculum successfully. Fourth, Grade 1 students showed extremely high interest in interacting with the 8-Week Learning Recovery Curriculum. Finally, the research suggested creating intervention activities that could help increase the curriculum implementation so as to enhance the numeracy ability of first graders.

CONCLUSIONS

The students perceived the overall service quality at Hinatuan Southern College positively. Each domain of service quality demonstrates distinct strengths, with communication and reliability garnering the highest ratings, indicating that these service quality dimensions significantly affect students' satisfaction. The students also highly regarded the assurance and responsiveness, indicating that these dimensions play a crucial role in students' fulfilment in college. Meanwhile, the empathy and tangibles are the recipients of the lowest mean score, suggesting that there is a potential area for improvement to be investigated by the administration. These high ratings across key indicators highlight a well-rounded and student-centered service culture, emphasizing trust, clarity, fairness, dependability, support, and resource availability. Collectively, these factors significantly enhance the overall student experience and reinforce the college's strong service quality reputation.

The overall extent of student satisfaction at Hinatuan Southern College is notably high, indicating that students are generally satisfied across all service areas. Students are most satisfied with the academic services offered by the school, where the clarity of instructors in explaining course goals and requirements reflects strong academic communication. The social services and administrative services of the school were also regarded as high, reflecting that student perceived these components as important indicators of their satisfaction at school. The support services were also rated high, indicating that the school satisfactorily enforce policies and regulations that help students to be more informed about institutional structure and governance. The school's campus environment, however, gained the lowest mean, while still positive, suggesting that there is a need for improvement in physical learning spaces. Overall, students express high satisfaction, especially in areas related to academic clarity, administrative support, and social belonging. However, the campus environment stands out as a potential area for enhancement to further enrich the student experience.

The significant relationship between the level of service quality and the extent of the student's satisfaction with Hinatuan Southern College indicates that a highly significant and favourable correlation between service quality and student satisfaction exists and perpetually enhances service quality, which is essential for providing a gratifying and fulfilling student experience. This underscores that student satisfaction is significantly affected by the quality of services rendered, positioning service excellence as a strategic need for the institution.

RECOMMENDATIONS

Based on the findings, the researcher recommends several actions. To assess the level of satisfaction in Hinatuan Southern College, students may be aware of what service quality means and what the key areas are to be considered. They can provide constructive feedback by participating in course evaluations and student surveys, using the official channel to report issues or suggest improvements, and being specific and respectful when giving feedback.

To maintain the quality of services, School Administrators and Personnel are recommended to cultivate a Student-Centric Environment by prioritizing the needs and experiences of students in the decision-making process, promoting transparent dialogue and attentive listening to student issues, and advocating for diversity, accessibility, and respect throughout all services.

To foster collaboration with the stakeholders, policymakers may define detailed quality standards by establishing national or regional frameworks for service quality in higher education, establishing benchmarks for academic, administrative, and student support services, and guaranteeing conformity with global standards and optimal practices.

To be ready for college life, future students may conduct research prior to enrollment, examine the service quality of the school under consideration by reviewing evaluations, rankings, and student testimonies, visit the campus when feasible, and inquire of current students regarding their experiences with academic assistance, amenities, and administrative services.

To establish gaps and have a deeper understanding about the topic, future researchers are recommended to identify research deficiencies by examining the current literature about models of service quality in higher education, such as SERVQUAL and HEdPERF, investigating under-explored domains such as digital service provision, student mental health services, or equity in accessibility, and exploring multidisciplinary strategies that integrate education, psychology, technology, and management.

The researcher may anchor her work in scholarly literature and perform a comprehensive literature review to situate it within the current body of knowledge. Also, the researcher should reference contemporary and pertinent research to substantiate the framework and conclusions.

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