

Effectiveness of Remedial Reading to Struggling Readers of Grade 7 Students

Leonard Ivan B. Abergos¹, John Royce M. Dela Cruz¹, Jessa C. Lasala¹, Shaina N. Prado¹, Princess Kate M. Tapar¹, Donna Claire B. Cañeza¹, and Darrel M. Ocampo^{1}*

¹Central Bicol State University of Agriculture-Sipocot, Coloy-coloy, Sipocot, Camarines Sur, Philippines

Abstract. This study aimed to determine the effectiveness of Remedial Reading to struggling readers of Grade-7 students at Bolo Norte High School. Specifically, it sought to 1) determine the reading comprehension level of respondents based on the pre and post-test results; 2) evaluate the significant difference between the reading comprehension level based on the pre and post-test results; and 3) design an extension service to support the existing remedial reading program of Bolo Norte High School. This study used descriptive and documentary methods utilizing secondary data: PHIL-IRI pre-test and post-test results of 120 Grade-7 students at the school who have been identified as struggling readers based on their performance on the standardized reading assessment administered by the school. The result of the level of reading comprehension of the respondents on the pre-test was 6.68, interpreted as "Emerging." The post-test result after the first five months of implementation was changed to 11.10, interpreted as "Developing." A paired T-test was conducted to determine the significance of this improvement. The t-value of -9.21 and the associated p-value of 0.000 suggest a significant difference between the pre and post-test scores. This data indicates that remedial reading is effective in improving reading comprehension. However, the post-test score did not achieve the intended outcome. Therefore, the researchers proposed an extension service program to support the existing remedial reading program of Bolo Norte High School called Project CASARO (Creating Alliance in Supporting and Assisting Reading Opportune for BNHS-LN).

1 Introduction

According to the Center for Public Education, reading is a very successful means of acquiring knowledge. The majority of cognitive exercises in the classroom call on reading and thinking skills. Before responding to specific articles or reading materials, students must first read. Before writing a paragraph, students must read anything in order to ensure that it is thorough, detailed, and in-depth. Reading comprehension is a fundamental need for the students to acquire. Nonetheless, some research indicates that Filipino students' reading issues appear to be enduring [1-6]. Thus, the primary focus of all Philippine curricula has always been on

* Corresponding author: darrel.ocampo@cbsua.edu.ph

teaching reading and literacy. According to Umali (2016), there are two types of reading instruction in the Philippines: (1) remedial reading class, which is a separate subject offered to students who are struggling readers, and (2) regular reading class, which is a part of the regular curriculum [6].

The Philippines, out of 79 participating countries and economies, had the lowest reading performance in the 2018 Program for International Student Assessment (PISA). PISA evaluates students' performance in reading, math, and science as well as how well they apply their essential knowledge and abilities at the age of 15 [7]. In 2018, at least 78% percent of the students in the Philippines failed to reach minimum levels of proficiency in each of the three PISA subjects.

According to the Department of Education (DepEd), there are about 76,000 students who are struggling to read in the Bicol Region [8]. In a move to bridge literacy gaps among learners, the Department of Education (DepEd) is intensifying its campaign on reading proficiency with the unveiling of the Hamon: *Bawat Bata Bumabasa (3Bs)* DepEd MEMORANDUM No. 123, s. The 2019 initiative will be on November 25, 2019, at the Philippine International Convention Center (PICC). Along these lines, the Department of Education (DepEd) in the Bicol region has also initiated the 5Bs program, or "Bawat Bicolanong Bata Bihasang Bumasa," which aims to assist approximately 76,000 Bicolano learners—out of the 1.8 million students in the region—who are classified as non-readers in improving their reading proficiency.

As cited by the school administrator of Bolo Norte High School during the informal interview conducted by the researchers, based on the 2022 Summary of the Comprehensive Rapid Literacy Assessment Results in English, 15% of the Grade 7 students are on the reading level frustration, 19% of the Grade 7 students are on the reading level frustration, 12% of the Grade 9 students are on the reading level frustration, and 5% of the Grade 10 are on the reading level frustration.

Hence, Bolo Norte High School gave rise to the development Program BNHS-LN, which stands for Building and Nurturing Holistic Students along Literacy and Numeracy, which advocates eradicating the prevailing issues and concerns on literacy and numeracy. Several projects were proposed under the program. One of the projects is Project READER (Revitalizing Enrichment Activities to Develop Empowered Readers). It is along this line that this research is conducted to help the school find ways to intensify the advocacy for reading to make every learner a reader and teachers become effective reading instructors.

Therefore, this study is conducted to support the two existing programs of DepEd *Hamon: Bawat Bata Bumabasa (3Bs)* and "*Bawat Bicolanong Bata Bihasang Bumasa*" or *5B's* and the intervention program of the school, the Program BNHS-LN designed to address the learning gaps, improve learning outcomes, and total well-being of the learners.

1.1 Objective of the Study

This study aimed to investigate the effectiveness of remedial reading to struggling readers of Grade 7 students.

Specifically, it aimed to:

- Determine the reading comprehension level of respondents based on the pre-test result and post-test results.
- Evaluate the significant difference between the reading comprehension level during the pre-test and post-test results.
- Design an extension service to support the remedial reading program of Bolo Norte High School.

1.2 Theoretical Framework

Literacy skills for children are important in terms of being a globally competitive person in the future. This study looks at several theories related to literacy development. The various theories presented by educational psychologists all converge on one solitary point: that continued and remedial reading practice contributes much to the learning process.

The sociolinguistic Theory of Vygotsky (1978) states that the development of language and literacy of a child is the responsibility of parents, carriers, peers, and society at large. He added that teachers are guided by sociolinguistic theory to understand that literacy learning is embedded in social contexts and is influenced by the learner's prior experience and knowledge, the relationship between the learner and the teacher, relationships among learners in a classroom, and the mediation of self-regulated, intentional learning through mechanics such as scaffolding, bootstrapping, and proleptic instruction [9]. Further, a child learns a lot of crucial information through social interaction with a knowledgeable tutor. The tutor could provide the student with verbal guidance or serve as an example of certain actions. This is referred to as cooperative or collaborative dialogue [9]. Thus, having an understanding of oral language will make children more fluent readers. It gives children better vocabulary and comprehension skills. The social interaction of a child renders better learning through the collaboration of a child with its environment. This theory is connected to this study because it supports the idea that remedial reading is a factor that will help children enhance their reading skills. The practice of reading continuously will help a child become familiar with unfamiliar words, and the words that they find difficult to read will be easier for them with the help of the persons in charge. The help of tutors, teachers, and parents will have a huge impact on a child's learning. That's why this theory is indicated: the social interaction of a child will help its learning.

According to **Whole Language Theory (Goodman, 1989; Watson, 1989)**, speaking, listening, and writing are closely related to reading and are all natural processes; therefore, if one of these language abilities improves, the others will follow [10,11]. It suggests that teachers employ a child-centered approach to motivate kids to learn. The present study is supported by this theory, which explains that students learn best when the material they are taught is relevant and useful. It suggests that teaching reading should be approached as a whole-to-part or whole-language process, as this promotes comprehension and enjoyment of written language [12]. This theory also states that through the immersion of books and some traditional ways of teaching phonics and spelling, a student learns and enhances their reading skill. This theory was also emphasized in this study because it helps teachers' knowledge and skill in responding to and catering to children's needs. This theory clearly states that it is student-centered, and the teacher will facilitate and guide the students in their learning. The whole language theory is indicated in this study because remedial reading will also immerse books and the traditional way of teaching how to read.

According to **Thorndike's (1910) connectionism theory**, the main goal of learning is to increase the bond between the stimulus and the response [13]. Three proposed statutes by Thorndike are: Laws of effect and readiness state that responses to situations that lead to rewarding states of affairs will become habitual; law of exercise states that connections become stronger with practice and weaken when practice is stopped; and law of readiness states that a series of responses can be chained together to satisfy some goal. These Laws state that learning occurs when a person is able to establish connections between a specific stimulus and a response. Therefore, instruction needs to be enjoyable. The teacher has to respect the interests and preferences of his students. Put otherwise, the bigger the incentive to learn, the greater the level of satisfaction. Therefore, one of the laws of effect's key conditions is intensity. Thorndike was particularly interested in applying his theory to education, namely in the areas of mathematics [14], reading and spelling [15], IQ testing [16], and adult education [17]. This theory is relevant to the current study because, with the three

laws presented above, it will significantly aid teachers in teaching the students as learning requires both practice and rewards.

Learning by doing Theory of Dewey (1887) states that everything occurs within a social environment [18]. Knowledge is socially constructed and based on experiences. One of the most effective ways to improve and further develop reading skills is through first-hand experience and practice. Extensive reading has been linked to improvement in general knowledge, vocabulary, spelling, verbal fluency, and reading comprehension [19,20]. It is based on the idea that learning is a cyclical process involving experience, perception, cognition, and behavior in a holistic manner where all four stages of the process are necessary for learning to occur. These stages include concrete experience such as a lab or module, observations and reactions, forming abstract concepts, and applying or testing this knowledge in new contexts. The learning theory states that learners learn best from their experiences and from mistakes that are made. Studies show that Children's ability to read words is tied to their ability to write words [21,22]. This approach upended the traditional notion that learning happens through lectures and rote memorization. Dewey argued that students learn best when they deeply engage with the material. He believed that the best way to achieve that was to create a practical curriculum that had relevance to students' lives and experiences [18]. This theory is related to the current study because it demonstrates how effective it is to use strategies to help students improve their reading and reading comprehension skills. Recent research shows that the process of retrieving such information itself improves understanding, increases recall, and promotes the "transfer" of knowledge to new settings. In other words, it makes learning a matter of doing, an active, effortful process.

2 Methodology

This chapter explains various methodologies that the researchers used in collecting the data and analysis that are relevant to this study. This includes the research design, research method, data gathering procedures, and the statistical treatment of data in order to determine the effectiveness of remedial reading to struggling readers of grade 7 students.

2.1 Research Design

The researchers in this study used a quantitative design to test the effectiveness of a remedial reading program by collecting and analyzing numerical data. We used two quantitative methods to collect data: descriptive research and documentary analysis. Descriptive research is a method that aims to describe the current state of a phenomenon. In this study, the researchers used descriptive research to compare the pre-test and post-test results of the students to determine the effectiveness of the remedial reading program. Documentary analysis is another method that uses documents as a source of data. In this study, the researchers used documentary analysis to collect data from the school's raw scores from the pre-test and post-test results of the remedial reading.

2.2 Research Method

The researchers used descriptive data analysis to describe, demonstrate, and summarize the data points to complete the study data. A descriptive method was used to analyze the pre-test and post-test results of the data gathered from Bolo North High School. The participants of this study are 16 Grade 7 students at Bolo Norte High School who have been identified as struggling readers based on their performance on the standardized reading assessment administered by the school. The study used purposive sampling techniques to identify the

respondents. Barreiro and Albandoz (2001) state that purposive sampling is a sampling technique where the person is selected as the sampling is chosen according to the writer's purpose and opinion. Confidentiality and anonymity of the participants were ensured by assigning unique identification numbers to each participant and by keeping all the data and records confidential. The study may have important implications for the implementation of the remedial reading program in schools to improve the reading skills of struggling readers. The results may also inform future researchers on effective interventions for struggling readers.

2.3 Data Gathering Procedure

The researchers prepared a letter of request to conduct the study in Bolo Norte High School. They coordinated with the School Principal and with the proponents of remedial reading at the school. The research instrument that the researchers used was the data of the raw scores from the pre-test and post-test results. The documents that are collected from the school will be statistically analyzed and interpreted using statistical treatment.

2.4 Statistical Treatment of Data

To acquire proper and accurate results, the researchers analyzed and interpreted the data using a variety of statistical tools. This study used frequency count and percentage to interpret the students' level of reading comprehension during the pre-test and level of reading comprehension during the post-test. The number of respondents was calculated using the frequency distribution and percentage.

Paired T-tests were used to determine if there was a significant difference between the means of the results of the struggling readers before and after the implementation of the intervention given to the students. The t-test is a dependent statistical tool that measures the relationship between these two variables: remedial reading and struggling readers.

3 Results and Discussion

The information gathered and its interpretation are presented in this section in three parts: the students' reading comprehension levels during the pre-test, the students' reading comprehension levels during the post-test, and the difference between the students' reading comprehension levels during the pre- and post-tests.

3.1 Reading Comprehension Level of the Students Based on Pre-Test Result

Table 1 discloses the result of the level of reading comprehension of the student during the pre-test, which was 6.68, interpreted as emerging. By dividing the total cumulative score of the students by the total number of tests, the table below was examined using the percentage technique.

Table 1. Reading Comprehension Level of the Students during Pre-Test

Score	Frequency	Percentage	Interpretation	Rank
17-20	0	0.00	Advanced	5
13-16	2	1.6	Proficient	4
9-12	25	20.8	Developing	2
6-8	70	58.3	Emerging	1
0-4	23	19.17	Beginning	3
Total	120	100		
Average		6.68	Emerging	

According to the data presented in Table 1, 70 students with a score of 6-8 with a percentage of 58.3% were interpreted as emerging. Meanwhile, 20.8% of the students scored 9-12 with a frequency count of 25, which was interpreted as developing. Students who scored 0-4 had a frequency count of 23 with a percentage of 19.7, which was interpreted as beginning. Meanwhile, 1.6% of the students scored 13-16 with a frequency count of 2 fall to proficient. Lastly, none of the students got into the advanced category.

These categories offer valuable insights into the distribution of students' pre-test reading comprehension scores, highlighting that the majority fall into the emerging or developing categories. This information has significant implications for education: it suggests a need for differentiated instruction to cater to diverse skill levels, encourages targeted interventions to support struggling students, prompts potential curriculum adjustments for better alignment, emphasizes the importance of continuous assessment to track progress, and underscores the necessity for educator professional development to effectively address the specific needs of students in the emerging and developing categories. Incorporating these implications into the educational system can be instrumental in promoting the growth and development of students' reading comprehension abilities.

The findings compellingly demonstrate that it is important to intervene as early as possible in order to help children who have seen their school year affected by the pandemic. If reading disabilities are not addressed early, difficulties tend to generalize to other domains, thus jeopardizing future knowledge acquisition and exposing students to consecutive experiences of failure, thereby diminishing their motivation to learn [23].

3.2 Reading Comprehension Level of the Students Based on Post-Test Result

The following table shows the post-test result of the level of reading comprehension of Grade 7 struggling readers after the intervention, and it is 11.10, interpreted as a developing level.

Table 2. Reading Comprehension Level of the Students during Post-Test

Score	Frequency	Percentage	Interpretation	Rank
17-20	15	12.50	Advanced	4
13-16	33	27.50	Proficient	2
9-12	28	23.33	Developing	3
6-8	39	32.50	Emerging	1
0-4	5	4.17	Beginning	5
Total	120	100		
Average		11.10	Developing	

As reflected in Table 2, 39 students scored 6-8, constituting 32.50%, which was interpreted as emerging. Meanwhile, 27.50% of the students scored 13-16 with a frequency count of 33, which was interpreted as proficient. Students who scored 9-12 had a frequency count of 28, constituting 23.33%, which was interpreted as developing. Meanwhile, 12.50% of the students scored 17-20, with a frequency count of 15 interpreted as proficient. Lastly, five students scored 0-4, constituting 4.17%, which was interpreted as beginning.

The reading comprehension level of the students during the post-test accumulated an average of 11.10, which is interpreted as developing. These findings demonstrate that remedial reading is an effective short-term intervention for tutoring struggling readers in both an individualized and small group setting. However, no advanced and proficient readers were found after the first five months of implementation of the program. The cause of learners' difficulties in reading varies, so intensive and individualized interventions are necessary. Therefore, much more effort and time is required to achieve the intended outcome.

The aforementioned study results are consistent with James's (2018) investigation, which found that after-school tutorial programs and one-on-one student tutorials that concentrated on core subjects and were guided by an administrator's leadership philosophy significantly enhanced student achievement [24].

3.3 Difference between the Reading Comprehension Level of the Students based on Pre-Test and Post-Test Results

The evaluation of students' reading comprehension levels through pre-and post-test results provides valuable insights into their academic progress and the effectiveness of educational interventions. By comparing the two sets of data, we can discern the difference in students' comprehension abilities over a specific period. Pre-test scores establish a baseline understanding before any intervention, while post-test scores indicate the level of improvement achieved after implementing targeted strategies. This comparison enables educators to identify strengths and weaknesses in their instructional approaches, adapt their methods, and better tailor their teaching to cater to individual learning needs. Understanding the disparity between pre and post-test results sheds light on the efficacy of educational practices and guides educators toward more effective ways to enhance students' reading comprehension skills.

Table 3. Difference between the Reading Comprehension Level of the Students based on Pre-Test and Post-Test Results

Source of Deference	Scores	Mean	T-Test Value	p-value	Decision	Interpretation
Level of reading comprehension of the respondents before and after intervention	Pre-Test	6.68	-9.21	0.000	Reject Ho	Significant
	Post-Test	11.10				

Table 3 presents a comparison of students' reading comprehension levels based on pre-test and post-test results. Initially, the pre-test scores indicated a mean reading comprehension level of 6.68, but after the intervention, there was a notable improvement, with the post-test scores revealing a mean reading comprehension level of 11.10. A T-test was conducted to assess the significance of this improvement, resulting in a T-test value of -9.21 and an associated p-value of 0.000, indicating a highly significant difference between the pre and

post-test scores. Consequently, the null hypothesis (H_0) was rejected, affirming that the intervention had a substantial impact on students' reading comprehension abilities. These findings underscore the effectiveness of the educational intervention in significantly enhancing students' reading comprehension levels, highlighting the value of targeted strategies in improving academic performance in this crucial area. The implications of these results extend to the need for continued investment in tailored educational interventions to advance students' reading comprehension skills and improve their overall academic achievement, emphasizing the potential benefits of such strategies for both students and educators.

A recent study that found remedial courses had an impact on students' life in the areas of academics, social work, psychology, economics, and job development [25] can be used to support the findings of this study. Children should also receive systematic, differentiated teaching based on their brains [26]. Teachers who are assigned to remediation hardly ever enhance their instructional approaches, according to another study [27]. These studies demonstrate that remedial programs for students are a useful tool for raising their academic performance, as does the research that has been done.

4 Conclusion and Recommendation

4.1 Conclusion

This study determined the effectiveness of remedial reading to struggling readers of Grade 7 students at Bolo Norte High School. Specifically, it looked into the following: (1) the reading comprehension level of respondents based on the pre-test result and post-test result; (2) the significance difference between the reading comprehension level during the pre-test and post-test result; and (3) an extension service may be proposed to support the remedial reading program of Bolo Norte High School. The results of the pre-test have indicated a predominant representation in the "Emerging" level, with the "Advanced" level registering at 0%. Most of the students demonstrated low reading comprehension skills. The findings emphasize the students' lack of proficiency in reading comprehension. There was an improvement in the overall reading comprehension levels of the respondents during the post-test. Among the 120 struggling readers, 23.33% demonstrated advancement, reaching the developing stage with an average of 11.10, indicating a positive response to the interventions implemented. The intervention had a substantial effect on the student's reading comprehension abilities. The interpretation of these findings highlighted the effectiveness of educational intervention.

4.2 Recommendation

Collaboration among stakeholders has the potential to significantly enhance the effectiveness of remedial reading programs. Teachers, in particular, should consider allocating ample time for students, especially those facing difficulties, to master the essential skills required for success at their grade level. Extending the duration of this intervention could be a viable approach, with valuable insights and data-driven strategies provided by researchers to achieve the desired results. The remedial reading program (Project READER) of Bolo Norte High School was proven to be effective. However, further programs to create alliances in supporting and assisting the students are deemed to be important.

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