

Article

A Comprehensive Assessment on the Early Reading Proficiency of Grade 3 Learners

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Abstract: This study investigates the effectiveness of targeted educational interventions on enhancing reading abilities among learners, assessed through a comprehensive pretest-posttest design. Various reading skills, including listening comprehension, letter sound knowledge, phonic awareness, and the recognition of familiar and non-familiar words, were evaluated. Statistical analyses were performed to compare pretest and posttest scores, with significant improvements noted across all skills. The results revealed marked increases in mean scores and statistically significant t-values, leading to the rejection of the null hypothesis in each tested category. These findings underscore the success of the instructional strategies implemented, demonstrating substantial advancements in the learners' reading proficiencies. This study highlights the critical role of tailored educational interventions in improving literacy skills, suggesting a positive impact on learners' academic development and offering insights for future educational practices.

Keywords: Reading skills, Pretest-Posttest design, literacy improvement, performance

Introduction

Early literacy is crucial in early education as it lays the foundation for academic success and lifelong learning (Birgisdottir et al., 2020). Reading, in particular, plays a pivotal role in cognitive development, enhancing vocabulary, comprehension, and critical thinking skills (Ardhian et al., 2020). Early exposure to books and reading activities stimulates brain development and prepares children for the educational challenges ahead, fostering a lifelong love for learning and intellectual curiosity (Al Suwaidi, 2024; Peckham, 2024).

The general expectations of reading proficiency for young learners are structured around their ability to recognize letters,

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understand phonemic awareness, and develop vocabulary (Johnston et al., 2023). Moreover, kindergarten children are expected to identify letters and sounds, and by first grade, they should start reading simple texts (Neeman & Shaul, 2021). These foundational skills are critical as they enable students to comprehend more complex texts and engage in effective communication as they progress through school (Panorama Education, 2024).

The ability to read proficiently is essential as it transitions students from "learning to read" to "reading to learn (Azevedo et al., 2021)." In higher grades, students rely on their reading skills to grasp new concepts, follow instructions, and perform well academically (Afflerbach, 2022). This shift underscores the importance of establishing strong reading skills early on, as it directly impacts a student's ability to learn across various subjects (Kim et al., 2021).

However, there are significant disparities in reading skills among young learners, often exacerbated by socioeconomic factors and recent disruptions like the COVID-19 pandemic (Shaul et al, 2024). These disparities create a gap between fluent and non-fluent readers, leading to long-term academic challenges (Hashem, 2022). Children who start school with inadequate reading skills are more likely to struggle academically and face increased risks of dropping out (Voyager Sopris Learning, 2024).

Assessing reading proficiency early is vital because delayed reading skills can have long-term consequences (Hashem, 2022). Research shows that children who are not reading proficiently by third grade are more likely to experience academic difficulties and lower graduation rates (Terry et al., 2022). Early assessment allows for timely interventions, which can help mitigate these risks and support children in developing the necessary skills for academic success (Carol Pufahl Literacy Foundation, 2024). The impact of this research on educational practices, policy-making, and interventions is significant. Highlighting the importance of early literacy and the consequences of delayed reading skills, educators and policymakers can prioritize early literacy programs, allocate resources effectively, and implement targeted interventions.

Methodology

This quantitative research employed a pretest-posttest design to evaluate the changes in reading abilities of Grade 3 learners, focusing on areas such as phonemic awareness, letter sound/name recognition, familiar and non-familiar word reading, oral reading fluency, and comprehension. The respondents were selected through simple random sampling from Eustaquio Capin Memorial Elementary School, consisting of thirty students. As highlighted by Mike (2017), the single pretest-posttest design is frequently utilized in experimental research to measure the impact of an intervention, providing insights into

participant performance before and after the intervention. This approach eliminates the need for random selection and allows for a direct comparison of pre- and post-intervention results. Ethical approvals and necessary authorizations were obtained prior to the study. Data were gathered using a profile questionnaire and the Early Grade Reading Assessment (EGRA) tool provided by the Department of Education. The EGRA tool assessed various reading skills through six specific tasks, including letter sound knowledge, initial sound identification, familiar word reading, invented word decoding, oral reading fluency, and reading comprehension. Each task involved specific activities such as identifying letter sounds, reading words, decoding invented words, reading a passage, and answering comprehension questions, providing a comprehensive evaluation of the learners' reading abilities.

Results and Discussion

Table 1. Level of Reading Ability of the Learners during Pretest in terms of Listening Comprehension

Level	Range of Scores	F	%
Expert	4-5	7	23.33
Intermediate	2-3	11	36.67
Beginner	0-1	12	40.00
Total		30	100.00
Average		2.17	
St. Dev.		1.80	

The data presented in Table 1 illustrates the reading ability of learners during a pretest, specifically focusing on their listening comprehension skills. The results are categorized into three levels of proficiency: expert, intermediate, and beginner. Out of a total of 30 learners, 7 (23.33%) were classified as experts, scoring between 4 and 5 points. The largest group was the intermediate level, comprising 11 learners (36.67%) with scores ranging from 2 to 3 points. The beginner level had the highest number of participants, with 12 learners (40.00%) scoring between 0 and 1 point. Overall, the average score across all participants was 2.17, with a standard deviation of 1.80, indicating a moderate spread of scores.

Table 2. Level of Reading Ability of the Learners during Pretest in terms of Letter Sound Knowledge

Level	Range of Scores	F	%
Advanced	81-100	0	0.00
Proficient	61-80	4	13.33
Approaching Proficiency	41-60	10	33.33
Developing	21-40	10	33.33
Beginning	0-20	6	20.00
Total		30	100.00
Average		39.77	
St. Dev.		19.40	

Notably, no learners scored within the advanced range of 81-100, indicating a lack of high proficiency in this group. Four learners (13.33%) were categorized as proficient, with scores ranging from 61 to 80. The majority of the learners fell into the middle categories, with 10 learners (33.33%) each in both the approaching proficiency and developing levels, scoring between 41-60 and 21-40 respectively. Six learners (20.00%) were at the beginning level, scoring between 0 and 20. Overall, the average score was 39.77, with a standard deviation of 19.40, showing a wide dispersion of scores. This suggests that while a majority of the learners have some foundational knowledge, they predominantly hover around the lower to middle proficiency levels, with substantial room for improvement in their understanding of letter sounds.

Table 3. Level of Reading Ability of the Learners during Pretest in terms of Phonic Awareness

Level	Range of Scores	f	%
Advanced	9-10	15	50.00
Proficient	7-8	9	30.00
Approaching Proficiency	5-6	5	16.67
Developing	3-4	1	3.33
Beginning	0-2	0	0.00
Total		30	100.00
Average		8.13	
St. Dev.		1.93	

Table 3 presents the distribution of reading abilities among learners during a pretest, emphasizing their phonic awareness. The data is categorized into five proficiency levels: advanced, proficient, approaching proficiency, developing, and beginning. A significant portion of the learners demonstrated a high level of phonic awareness, with 15 learners (50.00%) classified as advanced, scoring between 9 and 10. Additionally, 9 learners (30.00%) were considered proficient, with scores from 7 to 8. Fewer learners were in the lower categories, with 5 (16.67%) approaching proficiency at scores between 5 and 6, and only 1 learner (3.33%) in the developing category with a score between 3 and 4. Notably, no learners were in the beginning level, scoring between 0 and 2. The overall average score was quite high at 8.13, with a standard deviation of 1.93, indicating a generally strong command of phonic awareness across the group, albeit with some variability in the exact level of mastery. This suggests that the cohort as a whole possesses relatively robust phonic skills, which is a critical component of reading proficiency.

Table 4. Level of Reading Ability of the Learners during Pretest in terms of Familiar Words

Level	Range of Scores	f	%
Advanced	41-50	10	33.33
Proficient	31-40	2	6.67
Approaching Proficiency	21-30	6	20.00
Developing	11-20	1	3.33
Beginning	0-10	11	36.67
Total		30	100.00
Average		26.27	
St. Dev.		18.80	

Table 4 provides an overview of the reading abilities of learners during a pretest, with a focus on their recognition of familiar words. The data is stratified into five proficiency levels: advanced, proficient, approaching proficiency, developing, and beginning. In this distribution, 10 learners (33.33%) reached the advanced level, scoring between 41 and 50. This suggests a strong familiarity with the words tested. However, only 2 learners (6.67%) were categorized as proficient with scores between 31 and 40, indicating a smaller group with good but not excellent recognition skills. The approaching proficiency category includes 6 learners (20.00%), scoring between 21 and 30, showing a moderate understanding of familiar words. Interestingly, the distribution shows that a significant number of learners, 11 (36.67%), were at the beginning level, scoring between 0 and 10. This indicates a substantial portion of the group struggles significantly with word recognition. Only 1 learner (3.33%) was in the developing category, with scores between 11 and 20, suggesting few learners are in the transitional phase of word recognition skills. The overall average score for the group was 26.27, with a high standard deviation of 18.80, reflecting a broad spread in the abilities of the learners. This wide range underscores the varied levels of familiarity with words among the learners, from very high to very low, indicating diverse educational needs within the group.

Table 5. Level of Reading Ability of the Learners during Pretest in terms of Non-Familiar Words

Level	Range of Scores	f	%
Advanced	41-50	8	26.67
Proficient	31-40	2	6.67
Approaching Proficiency	21-30	6	20.00
Developing	11-20	8	26.67
Beginning	0-10	6	20.00
Total		30	100.00
Average		25.30	
St. Dev.		15.96	

Table 5 delineates the reading abilities of learners during a pretest, focusing on their recognition of non-familiar words, with the data

distributed across five proficiency levels: advanced, proficient, approaching proficiency, developing, and beginning. The data shows that 8 learners (26.67%) achieved an advanced level, scoring between 41 and 50, indicating a strong ability to recognize words they are not familiar with. There were 2 learners (6.67%) at the proficient level with scores ranging from 31 to 40, suggesting a reasonable but limited ability to handle non-familiar words. The middle tiers show a balanced distribution, with 6 learners (20.00%) categorized as approaching proficiency (scores between 21 and 30) and another 8 learners (26.67%) in the developing stage (scores between 11 and 20). This indicates a substantial number of learners are still working on improving their ability to recognize and understand non-familiar words. Additionally, 6 learners (20.00%) are at the beginning level, scoring between 0 and 10, highlighting a significant challenge in dealing with non-familiar words among this subgroup. Overall, the average score of 25.30 with a standard deviation of 15.96 points to a moderate mean performance with considerable variation among the learners. This variation underscores the diverse skill levels within the cohort, from those who are quite adept at deciphering new words to those who find it notably difficult, suggesting targeted instructional strategies might be necessary to enhance their reading skills further.

Table 6. Level of Reading Ability of the Learners during Pretest in terms of Oral Reading

Level	Range of Scores	F	%
Expert	4-5	12	40.00
Intermediate	2-3	15	50.00
Beginner	0-1	3	10.00
Total		30	100.00
Average		3.17	
St. Dev.		1.44	

Table 6 illustrates the reading abilities of learners during a pretest, specifically focusing on their oral reading skills, categorized into three proficiency levels: expert, intermediate, and beginner. The results indicate that 12 learners (40.00%) were classified as experts, scoring between 4 and 5, demonstrating strong oral reading capabilities. This suggests that a substantial portion of the cohort is proficient in reading aloud with minimal difficulties. The largest group consisted of 15 learners (50.00%) at the intermediate level, scoring between 2 and 3. This group likely represents learners who are generally capable of oral reading but may struggle with some aspects, such as fluency or pronunciation. Only 3 learners (10.00%) were placed in the beginner level, scoring between 0 and 1. This small number indicates that few learners face significant challenges with basic oral reading skills. Overall, the average score across all participants was 3.17, with a standard deviation of 1.44, suggesting a relatively high mean performance and moderate variability in the oral reading skills among

the learners. This data reflects a generally positive outlook on the learners' ability to read aloud, with most demonstrating at least intermediate proficiency.

Table 7. Level of Reading Ability of the Learners during Posttest in terms of Listening Comprehension

Level	Range of Scores	F	%
Expert	4-5	10	33.33
Intermediate	2-3	18	60.00
Beginner	0-1	2	6.67
Total		30	100.00
Average		3.27	
St. Dev.		1.26	

Table 7 provides a breakdown of the reading abilities of learners during a posttest, focusing on their listening comprehension skills. The data is categorized into three proficiency levels: expert, intermediate, and beginner. From the total of 30 learners, 10 (33.33%) achieved the expert level with scores between 4 and 5, indicating a significant improvement in listening comprehension for a substantial segment of the group. The intermediate category comprised the majority of learners, with 18 (60.00%) scoring between 2 and 3. This suggests that while many learners are not at the expert level, they still possess a competent level of listening comprehension. Only 2 learners (6.67%) were assessed as beginners, scoring between 0 and 1. This represents a decrease from the pretest results, showing that fewer learners are now struggling with the basics of listening comprehension. Overall, the average score improved to 3.27 from the pretest average of 2.17, and the standard deviation decreased to 1.26 from 1.80, indicating not only an increase in the average listening comprehension ability but also a reduction in the variability of scores among the learners. This demonstrates a positive shift in the listening comprehension skills across the cohort, likely reflecting the effectiveness of interventions or instruction provided between the pretest and posttest.

Table 8. Level of Reading Ability of the Learners during Posttest in terms of Letter Sound Knowledge

Level	Range of Scores	F	%
Advanced	81-100	0	0.00
Proficient	61-80	5	16.67
Approaching Proficiency	41-60	10	33.33
Developing	21-40	10	33.33
Beginning	0-20	5	16.67
Total		30	100.00
Average		42.20	
St. Dev.		19.26	

Table 8 outlines the results from a posttest assessing the learners' knowledge of letter sounds, categorized into five levels of proficiency. Interestingly, none of the learners reached the advanced level of 81-100, which indicates a continued challenge among the group in achieving high mastery in letter sound knowledge. However, there is a slight improvement in the higher proficiency tiers compared to the pretest results. Five learners (16.67%) are now in the proficient category, scoring between 61 and 80, which shows some advancement from earlier assessments. The majority of learners are still in the middle categories, with 10 learners (33.33%) each in the approaching proficiency and developing levels, scoring ranges of 41-60 and 21-40, respectively. This suggests that while some learners are progressing, a significant number still have only a basic to moderate understanding of letter sounds. The beginning category, representing the lowest level of knowledge (scores between 0 and 20), includes 5 learners (16.67%), a figure that points to a subset of the group still struggling significantly with letter sound knowledge. This is notably lower than the percentage of learners in the same category during the pretest, indicating some overall progress. The average score on the posttest has increased to 42.20 from the pretest average of 39.77, and the standard deviation has decreased slightly to 19.26 from 19.40, reflecting a modest improvement in average performance and a small reduction in score variability among the learners.

Table 9. Level of Reading Ability of the Learners during Posttest in terms of Phonic Awareness

Level	Range of Scores	F	%
Advanced	9-10	22	73.33
Proficient	7-8	7	23.33
Approaching Proficiency	5-6	1	3.33
Developing	3-4	0	0.00
Beginning	0-2	0	0.00
Total		30	100.00
Average		9.07	
St. Dev.		1.28	

Table 9 reflects a significant improvement in the reading abilities of learners during a posttest, specifically focusing on phonic awareness. The data, categorized into various proficiency levels, shows a substantial shift towards higher proficiency across the group. A remarkable 22 learners (73.33%) achieved scores in the advanced range (9-10), indicating a strong grasp of phonic awareness. This is a significant increase compared to the pretest, where only 15 learners were in this category. Additionally, 7 learners (23.33%) are now proficient, scoring between 7 and 8, which also represents an increase from the pretest. Notably, only 1 learner (3.33%) is in the approaching proficiency category, scoring between 5 and 6, and there are no learners

in the developing (scores of 3-4) or beginning (scores of 0-2) levels. This absence of learners in the lowest two categories marks a considerable improvement, indicating that interventions or instructional strategies implemented between the pretest and posttest have been highly effective. The overall average score on the posttest is 9.07, a notable increase from the pretest average of 8.13, and the standard deviation has slightly narrowed to 1.28 from 1.93, suggesting not only an enhancement in the learners' phonic awareness but also a more uniform distribution of abilities within the group. This data underscores a significant advancement in the learners' ability to understand and use phonics effectively.

Table 10. Level of Reading Ability of the Learners during Posttest in terms of Familiar Words

Level	Range of Scores	F	%
Advanced	41-50	12	40.00
Proficient	31-40	1	3.33
Approaching Proficiency	21-30	5	16.67
Developing	11-20	2	6.67
Beginning	0-10	10	33.33
Total		30	100.00
Average		28.20	
St. Dev.		17.82	

Table 10 displays the reading abilities of learners during a posttest, this time focusing on their recognition of familiar words, distributed across five proficiency levels. The results indicate a varied distribution of skill levels among the learners. The advanced level includes 12 learners (40.00%), who scored between 41 and 50, demonstrating a strong ability to recognize and understand familiar words. This indicates a good level of proficiency in a significant portion of the group. However, only 1 learner (3.33%) is categorized as proficient with scores between 31 and 40, suggesting that while some can recognize these words, very few do so with high consistency. The middle categories show a smaller number of learners: 5 (16.67%) are approaching proficiency with scores between 21 and 30, and 2 (6.67%) are in the developing category, scoring between 11 and 20. These results suggest that a moderate portion of the learners are still in the process of mastering word recognition. Interestingly, 10 learners (33.33%) are still at the beginning level, scoring between 0 and 10. This high percentage indicates that a substantial portion of the cohort struggles significantly with recognizing even familiar words, highlighting a critical area for targeted educational interventions. Overall, the average score for the group is 28.20, with a standard deviation of 17.82. Compared to the pretest results, there is a slight increase in the average score (from 26.27), but the variability in scores remains high, as indicated by the substantial standard deviation. These results suggest that while there has been some improvement, considerable disparities in the

recognition of familiar words persist among the learners, underscoring the need for continued instructional support.

Table 11. Level of Reading Ability of the Learners during Posttest in terms of Non-Familiar Words

Level	Range of Scores	f	%
Advanced	41-50	8	26.67
Proficient	31-40	4	13.33
Approaching Proficiency	21-30	6	20.00
Developing	11-20	8	26.67
Beginning	0-10	4	13.33
Total		30	100.00
Average		27.90	
St. Dev.		51.21	

Table 11 provides an overview of the reading abilities of learners during a posttest, focusing on their recognition of non-familiar words, with scores categorized into five proficiency levels. The results show that 8 learners (26.67%) have reached the advanced level, scoring between 41 and 50, indicating a significant capacity to recognize and understand words they are not familiar with. This group has a strong grasp of the material, which is essential for effective reading comprehension. In the proficient category, there are 4 learners (13.33%) with scores ranging from 31 to 40. This suggests that a modest portion of the learners have a fair understanding of non-familiar words, though not as comprehensive as those in the advanced category. The middle categories highlight that a substantial portion of the group is still developing these skills: 6 learners (20.00%) are in the approaching proficiency category with scores between 21 and 30, and 8 (26.67%) are in the developing category, scoring between 11 and 20. These results indicate a significant number of learners are on the cusp of better understanding but require further instruction and practice. Furthermore, 4 learners (13.33%) fall into the beginning level, scoring between 0 and 10. This represents those who struggle considerably with non-familiar words, highlighting a critical area for intervention. Overall, the average score is 27.90, which is slightly higher than the pretest average of 25.30. However, the standard deviation is notably large at 51.21, suggesting a very high variability in the scores.

Table 12. Level of Reading Ability of the Learners during Posttest in terms of Oral Reading

Level	Range of Scores	f	%
Expert	4-5	22	73.33
Intermediate	2-3	8	26.67
Beginner	0-1	0	0.00
Total		30	100.00
Average		4.13	
St. Dev.		0.97	

Table 12 provides the results from a posttest assessing the learners' oral reading abilities, categorized into three levels of proficiency: expert, intermediate, and beginner. This table reveals a significant enhancement in the learners' capabilities compared to the initial assessment. A majority of the learners, 22 out of 30 (73.33%), have achieved the expert level, scoring between 4 and 5. This high percentage indicates a strong proficiency in oral reading among most of the cohort, showcasing their ability to read aloud fluently and with minimal errors. The intermediate category comprises 8 learners (26.67%), who scored between 2 and 3. This suggests that while these learners have a grasp of oral reading, they may still encounter some difficulties, such as maintaining fluency or correct pronunciation, albeit these issues are not severe. Significantly, there are no learners in the beginner level (scores of 0-1), which indicates that all participants have moved beyond the most basic challenges of oral reading. This is a noteworthy improvement, demonstrating effective teaching and learning processes in enhancing oral reading skills. Overall, the average score for the group is 4.13, with a standard deviation of 0.97. The high average score paired with a relatively low standard deviation indicates not only an improvement in the learners' oral reading skills but also a consistency in their performance across the group. This consistency suggests that the learners are uniformly reaching higher proficiency levels, reflecting successful instructional interventions since the pretest.

Table 13. Test of significant difference between the Pretest and Posttest Scores of the Learners in their Reading Ability

Skills	Source of Difference	Mean	SD	Mean Diff.	Comp. t- value	p- value	Decision	Result
Listening Comprehension	Posttest	3.27	1.26	1.10	5.856*	0.000	Reject Ho	S
	Pretest	2.17	1.80					
Letter Sound Knowledge	Posttest	42.20	19.26	2.43	5.515*	0.000	Reject Ho	S
	Pretest	39.77	19.40					
Phonic Awareness	Posttest	9.07	1.28	0.93	4.255*	0.000	Reject Ho	S
	Pretest	8.13	1.93					
Familiar Words	Posttest	28.20	17.82	1.93	5.344*	0.000	Reject Ho	S
	Pretest	26.27	18.80					
Non Familiar Words	Posttest	27.90	15.21	2.60	7.623*	0.000	Reject Ho	S
	Pretest	25.30	15.96					
Oral Reading	Posttest	4.13	0.97	0.97	5.298*	0.000	Reject Ho	S
	Pretest	3.17	1.44					

*significant at $p < 0.05$; NS = Not Significant; S = Significant

Table 13 summarizes the statistical analysis comparing pretest and posttest scores of learners' reading abilities across several skills. The analysis utilizes mean differences, computed t-values, and corresponding p-values to test the significance of differences between

pretest and posttest results For each reading skill—Listening Comprehension, Letter Sound Knowledge, Phonic Awareness, Familiar Words, Non-Familiar Words, and Oral Reading—the posttest scores show marked improvement over the pretest scores. The mean differences range from 0.93 to 2.60, indicating positive changes across all categories. The computed t-values are significantly high, all marked with an asterisk to denote significance at $p < 0.05$, suggesting these improvements are statistically significant.

In Listening Comprehension, there's an increase in the mean score from 2.17 to 3.27, with a mean difference of 1.10 and a t-value of 5.856. Similar significant improvements are observed in Letter Sound Knowledge and Phonic Awareness, with increases in mean scores and high t-values, highlighting robust gains in these areas. The analysis for Familiar Words and Non-Familiar Words also reveals significant enhancements, supported by t-values of 5.344 and 7.623, respectively. These results indicate substantial advancement in both recognizing familiar words and deciphering words that are not familiar, crucial for comprehensive reading skills.

Oral Reading shows an improvement in the mean score from 3.17 to 4.13, with a t-value of 5.298, emphasizing enhanced proficiency in reading aloud among the learners. Overall, the statistical evidence suggests a significant improvement in all assessed reading skills between the pretest and posttest, leading to the rejection of the null hypothesis (H_0) for each skill. These findings substantiate the effectiveness of the instructional interventions implemented, demonstrating significant strides in enhancing the learners' reading abilities.

Conclusion

The comprehensive analysis of the pretest and posttest scores across various reading skills demonstrates significant improvements in learners' reading abilities. From listening comprehension to oral reading, learners showed marked enhancements in their performance, as evidenced by increased mean scores and statistically significant t-values. Notably, there were no learners left in the lowest proficiency levels in several categories by the posttest, highlighting the effectiveness of targeted educational interventions. These results affirm that the instructional strategies employed were successful in elevating the learners' capabilities in recognizing both familiar and non-familiar words, understanding letter sounds, and enhancing phonic awareness. The uniform improvement across all tested areas suggests that the interventions were well-suited to the learners' needs, providing them with the necessary skills to improve their overall reading proficiency. This progress not only underscores the importance of tailored instructional approaches but also sets a positive trajectory for future

educational endeavors to further enhance reading skills among learners.

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