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# Enhancing Elementary Students' Oral Reading Fluency Through Repeated Reading and Big Books



Abstract. Reading is crucial for learning across all disciplines and to develop an understanding of the ever-changing world. Recently, reading activities in schools have been hampered due to modular and distance learning effected by the COVID-19 pandemic. This study aimed to address students' oral reading fluency (ORF) and contribute to their reading development in the English language by employing repeated reading and Big Books interventions. Words correct per minute (WCPM) and accuracy rates were the main ORF components measured in this study. The sample involved 21 students in the Grade 4 level at Tinoc Central School (TCS), Tinoc, Ifugao, Philippines. The study employed an action research design and the Dynamic Indicators of Basic Early Literacy Skills - Oral Reading Fluency (DIBELS - ORF or DORF) assessment over three periods. The participants' ORF and the effect of employing repeated reading and Big Books as interventions were quantitatively analyzed. Results indicate that most participants had ORF WCPM and accuracy rates below the Grade 4 benchmark goals for English reading, indicating that they were at risk of reading difficulties. Some participants even attained ORF WCPM and accuracy rates below their grade level. Conclusively, there were positive improvements in the participants' ORF across the interventions, signifying the impact of repeated reading using Big Books on their reading fluency. Improved ORF fosters a deeper understanding of textual content and enhances communication skills, preparing students for better academic achievements and successful social interactions. Considering the study's findings, using repeated reading and Big Books to support students' English reading achievement is highly suggested for elementary reading enhancement.

**Keywords:** Big Books; elementary students; oral reading fluency; reading fluency; repeated reading

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# 1. Introduction

Reading is one of the fundamental basic skills every student must possess. It involves recognizing letters, improving literacy, enhancing comprehension, refining communication skills, stimulating imagination and creativity, and contributing to cognitive development and writing skills. It causes an expansion in the knowledge of the reader, hence providing an avenue for the individual's growth and understanding of the ever-changing world (Nalantha et al., 2018; Ningsih, 2017; van Erp, 2021).

Reading refers to the interactive process in which the reader utilizes effective strategies to construct a meaningful text representation (Pourhosein Gilakjani & Sabouri, 2016). Every student starts at elementary school, taking their first stage of formal education. Hence, inscribing students with reading skills at an early stage is crucial (Patpatga & Ersoy, 2016). Acquiring reading skills is relevant as it results in understanding information (Ningsih, 2017) and instils a sense of achievement among the students (van Erp, 2021). By reinforcing reading capabilities, students will have more significant progress in all areas of learning, since most disciplines involve reading (Nalantha et al., 2018).

Reading learning processes include fluency, comprehension, and vocabulary acquisition (van Erp, 2021). If the student is fluent in reading, it will ensure their comprehension and understanding of the information being read (Almutairi, 2018). Fluency, often referred to as oral reading fluency (ORF), is the skill to read a text at a fast speed, in a way that it is correct in all details and with proper expression (Paige, 2020). ORF is a significant phase in the reading process (Cotter, 2012). With fluency, struggling readers can create meaning and decipher the information and texts they read (DeWaard, 2021). As implied, a student must be fluent in reading to understand and decode words more easily (Gedik & Akyol, 2022). Accordingly, reading fluently without adversity lets students focus on relevant and irrelevant information to understand the passage context (Cotter, 2012).

The most recent results of the Program for International Student Assessment (PISA) 2022, conducted by the Organization for Economic Co-operation and Development (OECD), determined that students from the Philippines garnered 347 points in overall reading literacy. This is a mere seven-point increase from the 340 points in 2018. It shows that the Philippines lags essentially globally, as do its neighboring Asian countries. These scores indicate that 24% of the students have basic reading proficiency skills. This further implies that only one out of four Filipino students can identify the main idea of a moderately long text and comprehend its meaning and purpose (Chi, 2023; OECD, 2023).

During the onslaught of the coronavirus (COVID-19) pandemic, modular and distance learning was employed, restricting interactions between and among teachers and students. These conditions greatly affected how reading is taught by the teachers and the development of students' reading skills. As such, the pandemic significantly caused a sharp decline in reading achievement (Ludewig et al., 2022). There has been an indication that some elementary school students

were disconnected from learning during the pandemic, implying that their reading fluency needs to be assessed. If no action is taken, long-term damage is highly possible. Nevertheless, this need not be the case, since many children learn to read upon returning to school. It is then the role of the school to promptly identify effective techniques to alleviate reading skill issues (Domingue et al., 2022).

# 1.1 Research Gap

Developing reading skills among elementary students is crucial. It includes enhancing the students' reading fluency so that they understand the passage they are reading (Almutairi, 2018; Cotter, 2012; DeWaard, 2021; Gedik & Akyol, 2022; Paige, 2020; van Erp, 2021). The indicated low level of reading skills (Chi, 2023; OECD, 2023), decrease in proficiency in oral reading, and the decline of the reading development of students as affected by the pandemic (Ludewig et al., 2022) has created the need to employ solutions to respond to these issues (Domingue et al., 2022; Nalantha et al., 2018). There is a contextual gap in the use of repeated reading and Big Books interventions as supporting solutions to enhance the reading skills of the students affected by the pandemic as they return to regular classroom settings.

# **1.2 Research Aim and Questions**

This study aimed to address reading fluency and contribute to students' reading development in English. Specifically, this study aimed to determine students' oral fluency in reading and the effect of repeated reading using Big Books as interventions on their reading skills. The following questions guided the study:

- 1. What are students' ORF statuses regarding WCPM and accuracy rate across three assessment periods?
- 2. Are there significant differences in students' ORF WCPM and accuracy rate after employing repeated reading and Big Books interventions?

## **1.3 Research Significance**

A study on improving students' ORF is crucial as it associates directly with their overall academic success and language proficiency. Enhanced ORF signifies a student's ability to read with speed, accuracy, and proper expression and is a strong predictor of whether their English reading skills are appropriate for their grade level. Research in this area may inform global educators about effective strategies and interventions, such as repeated reading and Big Books, facilitating the development of evidence-based educational approaches. Improved ORF fosters a deeper understanding of textual content and enhances communication skills, thereby preparing students for academic achievements and successful social interactions.

## 2. Literature Review

## **2.1 Theoretical Framework**

The Philippines is a culturally diverse nation, with at least 110 ethnolinguistic groups and over 150 unique languages (United Nations Development Programme, 2013). Aside from the mother tongue, it is undeniable that the English language has been a vital part of the country's education. Essentially, the country's constitution decreed Filipino and English as co-official languages,

shaping the languages used in teaching. Henceforth, English is considered one of the country's secondary languages.

Using English as a second language is associated with second language acquisition (SLA) theory. According to SLA theory, a foreign language can be learned through either acquired or learned systems. In the acquired system or acquisition, a foreign language is a product of a subconscious process that requires meaningful interaction in the target language through natural communication. Conversely, in the learned system or learning, learning a foreign language results from formal education (Schutz, 2019). The use of the mother tongue as first language (L1) as the medium of teaching in the elementary level, mainly grades 1 to 3, and then shifting to English as second language (L2) in the intermediate level, mainly grades 4 to 6, underscores SLA in the Philippines' K to 12 Basic Education Program (Department of Education, 2016). The integration of English in the later years may affect students' ability to acquire L2 foundational reading skills in addition to L1 as the language of teaching. There is an observed association between students' reading achievement and language complexity. It presents that the more complex L1 is, the lower the reading achievement in L2, and probably the third language (L3) (Brunette et al., 2019).

Reading fluency is supported by the automaticity theory, which focuses on word recognition. In this theory, reading fluency is the ability to simultaneously decode and comprehend a text (Samuels, 2007). It suggests that fluent readers can decode the text automatically without comprehending it. It indicates that decoding, comprehension, and attention are the three basic processes in students' reading (Samuels, 2007). Interestingly, when students give more attention to decoding, their attention to comprehension declines, and vice versa (Aldhanhani & Abu-Ayyash, 2020). Automaticity theory helps to identify individuals with reading problems (Pikulski & Chard, 2005). It believes that rather than indicating lack of memory, reading problems are indicative of the lack of attention given to texts. Automaticity theory suggests using simple texts with students to develop their reading skills automatically to solve this problem (Samuels, 1979). However, rubrics or assessments are highly suggested to monitor students' reading progress (Samuels, 2007).

## 2.2 Assessing Oral Reading Fluency

One way to determine students' reading fluency is by assessing their ORF. It is a standardized measure administered individually, indicating accuracy and fluency with the connected text (University of Oregon, 2020). It is a highly recommended skill to be integrated into English reading programs (Aldhanhani & Abu-Ayyash, 2020). ORF may indicate if a student has sufficient reading skills and help identify if they can read a more complex text at more proficient levels (Hudson et al., 2020). As the student advances in grade level, their average reading fluency rates increase.

To assess ORF, the student must read an unpracticed passage within a specified timeframe (Hasbrouck & Tindal, 2017). One component to measure ORF is the measurement metrics of words correct per minute (WCPM). It is calculated based

on the total reading rate or the number of words read subtracted by reading miscues or mispronounced, skipped, and inserted words for one minute (Paige, 2020). ORF WCPM measures the student's speed and fluency in reading texts. A higher ORF WCPM score indicates that the student can read more words accurately per minute, suggesting that they have better overall reading fluency. Customarily, the ORF WCPM score is compared to specific benchmarks per grade level to determine the reading fluency performance of the student (Hasbrouck & Tindal, 2017; University of Oregon, 2020).

Another component used to measure ORF is the accuracy rate. The accuracy rate measures the percentage of words the student reads correctly in a specified timeframe. A higher ORF accuracy score indicates that the student can decode and recognize words and has better reading accuracy skills. It is also compared to specific benchmarks per grade level to describe the reading accuracy skills of the student. Though WCPM and accuracy rate are vital components to determine a student's ORF, these components must be treated separately depending on the purpose of the ORF assessment. It must also be noted that other factors, such as comprehension, may affect the student's ORF (Hasbrouck & Tindal, 2017; University of Oregon, 2020).

Interpreting the ORF results depends on its purposes, that is, screening and progress monitoring of students' reading skills. During the screening process, the teacher can compare the student's ORF scores to that of their peers and identify students at risk of reading failure. In monitoring, the ORF scores are used to determine if the student is making expected progress or if the teaching supports improving the student's reading skills. For monitoring, ORF assessments must be done frequently, such as weekly or bimonthly (Hasbrouck & Tindal, 2017). ORF evaluations are based on the benchmarks indicated and measured three times a year, beginning (fall/autumn), middle (winter), and end (spring) (Hasbrouck & Tindal, 2017; University of Oregon, 2020).

Benchmark goals are used to measure the student's achievements against specific grade-level standards. Specifically, reading benchmarks indicate the reading progress of students and are often focused on fluency, accuracy, and comprehension (University of Oregon, 2020). For instance, the obtained WCPM scores can be compared to the benchmarks and interpreted if the student is at risk or has negligible reading risk. The students who are identified as being significantly below the benchmark are the ones who are possibly at risk of having reading difficulties (Hasbrouck & Tindal, 2017). Hence, these benchmarks may be used to identify students who need intervention. With these outcomes, the teacher can decide if there is a need to modify teaching methods or make a new decision and integrate new approaches to catalyze students' interest and motivation in reading (Aldhanhani & Abu-Ayyash, 2020).

## 2.3 Repeated Reading and Big Books as Academic Interventions

An effective intervention for increasing students' reading fluency is repeated reading, anchored in automaticity theory. Repeated reading helps establish reading fluency by letting students recognize high-frequency words. This method

consists of rereading a short and meaningful text until a satisfactory level of understanding is attained (Samuels, 1979). For instance, some students may need help understanding the words of a passage during the first reading. However, by revisiting and skimming the passage multiple times, they will become more familiar with the pronunciation of words, allowing them to read fluently (Berg & Lyke, 2012; Nurhidayah, 2013; Roberts, 2011). Repeated readings can be done independently, with partners, or facilitated by tutors or adults (Samuels, 1979). In selecting the text of passages for repeated readings, it is essential to consider the appropriate text for the student's grade level (Fields, 2019).

Repeated readings can engage students when the passages are contained in Big Books. Big Books contain specific themes in teaching, such as animals, plants, and activities. Big Books have at least 10 to 15 pages and are composed of short stories with simple yet engaging storylines, big pictures or illustrations, rhyming word patterns, repetitive phrases, and vocabularies (Karges-Bone, 1992, as cited in Colville-Hall & O'Connor, 2006). Using Big Books with colorful illustrations can increase students' motivation. Students can learn through the texts while relating them to the images. It has also been noted that big pictures combined with words are adequate for reading accuracy and elevate superior word reading, reading comprehension, spelling, basic decoding skills, and phonemic awareness (Agustina, 2018; Kuşdemir & Bulut, 2018).

Big Books can significantly improve students' reading achievement. This can be seen from the increasing reading ability of the student from the beginning to the end of reading learning (Nurani & Mahendra, 2019). There are no disadvantages to Big Books but significant advantages across various literacy measures, suggesting that utilizing it as a tool for literacy education is highly beneficial, with few notable drawbacks. This balanced approach could be a model for finding more effective ways to teach literacy to disadvantaged children who need it the most (Tse & Nicholson, 2014).

## 3. Methodology

# 3.1 Research Design

The study employed action research, a research design commonly intended for educators to solve problems and improve classroom practices. It comprises systematic observations and data gathering that the researcher can use to reflect on, decide, and develop better classroom strategies (Gedzune, 2014). The study mainly used practical action research to address the circumstances surrounding students' ORF in English. This design solves specific problems through four stages: planning, acting, developing, and reflecting (Mertler, 2021; Tekin & Kotaman, 2013).

The study's planning stage involved determining the participating students' English reading fluency level through ORF WCPM and accuracy rate. This stage was employed at the beginning and served as the screening to determine their ORF strengths and weaknesses. The results then provided evidence for us to identify the words or phrases in the passage that the students were struggling with (Hasbrouck & Tindal, 2017). This served as the basis for devising the action

plan, including designing the intervention to match the teaching approach effectively with the students' ORF. Based on the DIBELS benchmark cut-off scores, students scoring below the ORF benchmark were also identified for intensive and individualized intervention. Those students who performed at or above the benchmark received the same intervention but with less guidance.

In the acting stage, we implemented repeated reading using Big Books interventions. Afterward, the ORF assessment was conducted as a middle-period assessment to monitor students' progress (Hasbrouck & Tindal, 2017). The results were analyzed to determine the students' ORF status after the intervention. During the developing stage, results from the middle period were used to enhance the intervention materials, including the size of the Big Books, font size of the passages, and vitality of the illustrations. After enhancement, the intervention process continued with improved reading materials. Finally, the end assessment was done during the reflecting stage to determine the students' progress. The results were used to determine the effectiveness of repeated reading using Big Books interventions to impact students' ORF. The study was conducted from March to May during the school year 2022 – 2023. Each assessment period was conducted after three weeks.

#### **3.2 Participants**

The study involved a Grade 4 class section at Tinoc Central School (TCS), Tinoc, Ifugao, Philippines. TCS is one of the rural elementary schools in the Tinoc District. Notably, the class involved 21 elementary students aged 9 to 11 years old, with 10 (47.62%) being male and 11 (52.38%) female. The small number of involved students was reflected in the small student population of the school. The selection of only one class section allowed us to direct and focus the intervention and monitoring of students' reading progress. Moreover, the Grade 4 level selection was based on the transition of the language of teaching at the elementary level. The Philippine educational system allows the primary use of the mother tongue as teaching medium, except in teaching Filipino and English subjects, in grades 1 to 3. The primary use of English as a teaching medium to teach almost all subjects starts at the Grade 4 level. This significant change in the use of languages affects the students' language proficiency and their English reading skills.

#### 3.3 Instrument

The data gathering instrument used in this study was the *DIBELS 8th edition Benchmark Goals* ORF (DORF) test. This test was developed and published by the University of Oregon (2020) and is one of the subtests used in DIBELS with its own specific administering and scoring rules. It uses passages that must be read aloud and are appropriate for each grade level. It is administered individually, and its results are used to measure the fluency and accuracy of the reader with the connected text. To determine the results, DORF uses two scores. The first score measures the student's reading speed and fluency, expressed as WCPM. The second score measures comprehension, decoding skills, and reading accuracy as determined by an accuracy rate based on dividing the WCPM by the total number of words and multiplying it by 100.

Data were collected for each student through use of a scoring sheet on which the passage to be read was printed. The passage used in the DORF assessment is titled "The Moth and the Flame". This passage was adapted from the teacher's English module for the Grade 4 level. The same passage was used during the three assessment periods, but not during the intervention. The passage was printed in letter size (8.5 x 11 inches) and on bond paper. As suggested by DORF, the passage font size was 14 points for the Grade 4 level. The font style of the passage was Times New Roman, since it is one of the styles the students were more familiar with (University of Oregon, 2020).

#### 3.4 Procedure

Following an action research design and using the DIBELS – ORF assessment procedures and guidelines, the planning stage began by assessing the students' ORF WCPM and accuracy rates as pre-assessment screening to measure their reading fluency. Based on the screening results, an action plan and designing of Big Books and repeated reading interventions followed. This involved selecting the appropriate passages and designing the reading materials graphically. The students classified as performing below the ORF benchmark cut-off scores were selected to undergo intensive and individualized interventions. The remaining students who performed at or above the benchmarks underwent the same intervention but with less guidance. After planning, we implemented a repeated reading and Big Books intervention in the acting stage. After three weeks, the middle assessment was done to evaluate students' ORF skills development through the intervention.

The reading materials were enhanced in the developing stage based on the results from the middle assessment. The students were then reclassified; some students continued to undergo individualized interventions, and others with less guidance. The final assessment was done during the reflecting stage in order to determine students' reading fluency progress and development. In the middle and end assessments, the same passage that was used in the beginning as screening was used. Aside from providing feedback among the students, the results were also used to evaluate the effectiveness of the Big Books and repeated reading interventions.

For the interventions, the study implemented repeated reading using four Big Books designed and produced by the researchers. The short stories used in making the four books include *The Carabao and the Cow, The Tortoise that Wanted to Fly, The Three Little Wolves and the Big Bad Pigs,* and *When I Grow Up.* These stories were included as appropriate reading materials for the Grade 4 level and were copied from the class adviser's English teaching modules. The Big Books' size was formatted at 40 x 30 cm (approximately 16 x 12 inches), with large, colorful illustrations (Tse & Nicholson, 2014). The books were 10 to 15 pages each and utilized a font size of 32 points. Two of the books used the Berlin Sans FB font style, while the other two used Comics Sans FB (University of Oregon, 2020). The intervention lasted six weeks, with the middle and end assessments done after three-week intervals.

Parents' consent was solicited to allow their child or ward to participate in the study. To maintain anonymity and confidentiality, number codes were assigned for the participating students and their assessment results were kept and stored securely. The intervention was executed in the students' classroom during class breaks. It was conducted one-on-one for students with below-average ORF, and in groups for those who fell under the at risk or some risk benchmarks (Samuels, 1979). Each session of the repeated reading lasted for about 20 to 30 minutes, as Grade 4 students are expected to experience a change from *"building the knowledge to read, to reading for knowledge"* (Scholastic Parents Staff, 2022). All results along the three assessment periods were then gathered, tabulated, and analyzed to draw conclusions and recommendations.

#### 3.5 Data Analysis

The students' ORF results were categorized based on the cut-off scores indicated on the *DIBELS 8th edition Benchmarks Goals* assessment (University of Oregon, 2020). The cut-off scores for the ORF WCPM are shown in Table 1, with the cut-off scores along the beginning, middle, and end periods varying.

	Cut-off scores	- Rick category	Benchmark		
Beginning	g Middle End		Kisk category	goal	
131 and above	159 and above	159 and above	Negligible risk	Above benchmark	
87 - 130	121 - 158	125 - 158	Minimal risk	At benchmark	
62 - 86	98 - 120	99 - 124	Some risk	Below	
61 and below	97 and below	98 and below	At risk	benchmark	

Table 1: Cut-off scores for Grade 4 DIBELS – ORF in terms of WCPM

Table 2 shows the cut-off scores for ORF accuracy. The cut-off scores for ORF accuracy were the same across the three periods. Moreover, the cut-off scores allow the determination of the students' ORF risk category and benchmark goal or level.

Table 2: Cut-off scores for Grade 4 DIBELS - ORF in terms of accuracy rate

Cut-off scores	<b>Risk category</b>	Benchmark goal
96% and above	Low risk	At or above benchmark
91% - 95%	Some risk	Palace has also als
90% and below	At risk	below benchmark

Students whose ORF WCPM score is at or above the benchmark have minimal or negligible risk in reading and are performing significantly along the grade-level expectations regarding speed and fluency. These students have low reading risk and can read with a relatively high level of accuracy, have strong decoding skills, and can accurately read and comprehend text for the expected grade level. Those below the benchmark are at risk or some risk in reading and are at significant risk for reading difficulties. These students read significantly below the grade-level expectations regarding speed and fluency. The data gathered along the three assessments using the DORF were analyzed quantitatively. Analysis of variance (ANOVA) was used to determine the significant difference in the ORF accuracy of the students during the three assessment periods. To determine the impact of the reading intervention, the effect size for the difference between the students' three mean ORF accuracy scores was calculated using the partial eta-squared ( $\eta^2$ ).

## 4. Results

The participating Grade 4 students' WCPM results during the beginning, middle, and end assessment periods are shown in Table 3. The total number of words read per minute (TWPM) by each student are also presented. The students were arbitrarily assigned numbers from S1 to S21. Results show that almost all students, except for one, had a noticeable progressive increase in their WCPM across the periods. The WCPM of S5 decreased from the beginning to the middle period but increased later at the end of the assessment.

Chudomt	Beginning		Middle		End	
Student	WCPM	TWPM	WCPM	TWPM	WCPM	TWPM
S1	11	29	15	24	28	39
S2	141	141	157	157	197	197
<b>S</b> 3	5	18	29	39	46	58
S4	54	56	76	78	87	88
S5	16	31	10	17	18	25
S6	34	40	38	45	44	49
S7	51	58	69	81	78	85
S8	78	81	111	120	125	129
S9	61	62	69	73	105	105
S10	59	62	82	83	107	107
S11	80	84	92	95	117	118
S12	74	79	82	87	134	134
S13	143	144	155	158	188	188
S14	66	67	71	77	92	94
S15	77	80	90	94	119	119
S16	84	87	110	110	116	117
S17	60	78	77	85	78	81
S18	93	99	104	107	132	132
S19	59	61	69	73	95	96
S20	152	152	174	174	184	184
S21	74	76	86	90	105	105

Table 3: The DIBELS - ORF results of the students along the three assessment periods

*Note:* WCPM = words correct per minute; TWPM = total words read per minute

Table 4 shows the individual risk categories of the students based on their ORF WCPM score. Results indicate that across the three assessment periods, most

students performed continually below the benchmark, at both at risk and some risk categories. This is despite undergoing intensive and individualized teaching through repeated reading and Big Books interventions during the middle and end periods. Notably, a more significant proportion of the students achieved WCPM results that were below the benchmark.

	Beginning		Middle		End	
Student	WCPM	Risk category	WCPM	Risk category	WCPM	Risk category
S1	11	At risk	15	At risk	28	At risk
S2	141	Negligible risk	157	Minimal risk	197	Negligible risk
<b>S</b> 3	5	At risk	29	At risk	46	At risk
S4	54	At risk	76	At risk	87	At risk
S5	16	At risk	10	At risk	18	At risk
S6	34	At risk	38	At risk	44	At risk
S7	51	At risk	69	At risk	78	At risk
S8	78	Some risk	111	Some risk	125	Minimal risk
S9	61	At risk	69	At risk	105	Some risk
S10	59	At risk	82	At risk	107	Some risk
S11	80	Some risk	92	At risk	117	Some risk
S12	74	Some risk	82	At risk	134	Minimal risk
S13	143	Negligible risk	155	Minimal risk	188	Negligible risk
S14	66	Some risk	71	At risk	92	At risk
S15	77	Some risk	90	At risk	119	Some risk
S16	84	Some risk	110	Some risk	116	Some risk
S17	60	At risk	77	At risk	78	At risk
S18	93	Minimal risk	104	Some risk	132	Minimal risk
S19	59	At risk	69	At risk	95	At risk
S20	152	Negligible risk	174	Negligible risk	184	Negligible risk
S21	74	Some risk	86	At risk	105	Some risk

Table 4: Risk categories of the students based on their ORF WCPM score along the three assessment periods

*Note:* WCPM = words correct per minute; negligible risk = above benchmark; minimal risk = at benchmark; some risk and at risk = below benchmark

Table 5 shows the risk categories of the students based on their ORF accuracy during the three periods, noting that the cut-off scores for ORF accuracy during the three periods were the same. Results show a noticeable increase in most students' ORF accuracy over the three periods.

	Beginning		Mic	ldle	End	
Student	Accuracy (%)	Accuracy Risk (%) category		Risk category	Accuracy (%)	Risk category
S1	37.93	At risk	62.50	At risk	71.79	At risk
S2	100.00	Low risk	100.00	Low risk	100.00	Low risk
S3	27.78	At risk	74.36	At risk	79.31	At risk
S4	96.43	Low risk	97.44	Low risk	98.86	Low risk
S5	51.61	At risk	58.82	At risk	72.00	At risk
S6	85.00	At risk	84.44	At risk	89.80	At risk
S7	87.93	At risk	85.19	At risk	91.76	Some risk
S8	96.30	Low risk	92.50	Some risk	96.90	Low risk
S9	98.39	Low risk	94.52	Some risk	100.00	Low risk
S10	95.16	Some risk	98.80	Low risk	100.00	Low risk
S11	95.24	Some risk	96.84	Low risk	99.15	Low risk
S12	93.67	Some risk	94.25	Some risk	100.00	Low risk
S13	99.31	Low risk	98.10	Low risk	100.00	Low risk
S14	98.51	Low risk	92.21	Some risk	97.87	Low risk
S15	96.25	Low risk	95.74	Low risk	100.00	Low risk
S16	96.55	Low risk	100.00	Low risk	99.15	Low risk
S17	76.92	At risk	90.59	Some risk	96.30	Low risk
S18	93.94	Some risk	97.20	Low risk	100.00	Low risk
S19	96.72	Low risk	94.52	Some risk	98.96	Low risk
S20	100.00	Low risk	100.00	Low risk	100.00	Low risk
S21	97.37	Low risk	95.56	Low risk	100.00	Low risk
Mean	86.72	At risk	90.65	Some risk	94.85	Some risk

Table 5: Risk categories of the students based on their ORF accuracy along the three assessment periods

*Note:* At risk = below benchmark; some risk = below benchmark; low risk = at or above benchmark

Table 6 indicates the ANOVA results comparing the students' ORF accuracy along the three assessment periods. As seen in the table, the means of the ORF accuracy scores of the students were significant along the beginning, middle, and end assessments. These results indicate a significant improvement in the ORF accuracy scores obtained during the three periods after students had undergone the interventions. Furthermore, the results show a large effect size for the difference between the mean ORF accuracy scores of the students. The results indicate a substantial improvement in ORF accuracy along the beginning, middle, and end assessments.

Source of variation	df	Sum of squares	Mean square	Computed F	Tabular F (.05,2,40)	Partial eta- squared $(\eta^2)$	
Assessment	2	695.16	347.58	6 402*	2 727	245	
Error	40	2141.37	53.534	0.493	3.232	.243	

 Table 6: Analysis of variance comparing the students' ORF accuracy along the three assessment periods

*Note:* df = degree of freedom; \* = significant (*F*-computed > *F*-tabulated);  $\eta^2$  = .01 is small effect;  $\eta^2$  = .06 is medium effect;  $\eta^2$  = .14 is large effect

# 5. Discussion

Considering that ORF is a vital component of the reading process, results indicate that most of the participating Grade 4 students performed significantly below the DIBELS benchmark goals, indicating that they were at risk in their English reading skills. Conversely, only a few students were performing at or above the benchmarks. The students' ORF scores reflect the country's minimum proficiency in reading literacy as evaluated by PISA in 2018 and 2022, as reported by Chi (2023) and OECD (2023). Below-benchmark scores imply that these students were at risk regarding understanding and decoding words, affecting their apprehension of the passage, as identified by Cotter (2012), DeWaard (2021), and Gedik and Akyol (2022). They could not automatically decode the words and struggled to read, as noted by Pikulski and Chard (2005) and Samuels (2007) relative to the reading automaticity theory. This indicates that the students lacked the proper reading skills for their grade level. This below-benchmark performance may also indicate that the students have reading skills below their current Grade 4 level, based on the categorization of Hasbrouck and Tindal (2017).

Looking at the WCPM results from the beginning assessment, some students had WCPM falling under the Grade 3 benchmark goals of at least 105 correct words compared to the suggested ORF WCPM of 131 words by the University of Oregon (2020). Some even had WCPM indicated for the Grade 2 level of at least 85 correct words. Even more shocking, there were students with WCPM of at least 35 words, indicating their ORF ability at the Grade 1 level. Not much changed during the end period regarding the students' WCPM grade-level benchmark. Some students were still categorized at Grade 1, attaining at least 76 correct words; at Grade 2, with at least 128 correct words; and at Grade 3, with at least 136 words. Only a few were classified at their Grade 4 level during the beginning assessment, with at least 131 correct words, and by the end period, they had at least 159 correct words. Nonetheless, though some of the students' ORF was still below the Grade 4 level, results indicate that their WCPM increased along the three assessments due to the interventions.

Results of the ORF WCPM show that numerous students were at risk or had some risk in reading. This signifies that most of the students had low English reading

fluency skills. They could only read fewer words in the passage for a minute. They could also not achieve the number of words indicated by the DIBELS benchmark goals for their grade level. However, it is noticeable that the WCPM of all the students progressed positively despite failure to attain the appropriate WCPM for some of the students.

Regarding ORF accuracy, almost half of the students were at low risk compared to those at risk or some risk during the beginning. It was observed that the students' accuracy improved optimistically during the middle and end periods, although some were still at risk in these periods. The progressive results of the students' accuracy level show that their ability to read words precisely improved (University of Oregon, 2020). The students were able to decode and recognize words and had better reading accuracy skills at the end of the intervention. Nonetheless, it must be remembered that even if WCPM and accuracy rate are time-efficient ways to determine students' reading fluency, it does not entirely measure students' overall reading skills, as Hasbrouck (2023) and the University of Oregon (2020) emphasized.

One factor that possibly affected the below-benchmark ORF of the participating students may be their late exposure to the English language. Notably, the transition from the use of the native mother tongue to the English language as one of the primary teaching mediums occurs in this grade level, based on the curriculum of the Department of Education (2016). As such, these students may still be experiencing or adapting to the language change. This reflects Brunette et al.'s (2019) suggestion that Grade 4 students may progress in learning and acquiring the English language, reflecting SLA. The effect of the pandemic may also be considered to affect students' ORF performance, considering the studies of Domingue et al. (2022) and Ludewig et al. (2022). The pandemic affected regular classes, causing a shift to distance and modular approaches, affecting reading skills. Teachers could not involve themselves directly; students thus had to depend on their family members. Though some of the students were able to learn at home, there is still a noticeable decline in their reading achievement and literacy. Other factors affecting the students' ORF may include their other reading skills, such as comprehension, vocabulary, sight words, and sound recognition, as Hasbrouck (2023) suggested.

Repeated reading using Big Books was utilized to help address the decline in students' reading skills. The students' reading accuracy was shown to have been considerably impacted by these interventions. The interventions significantly increased students' ORF accuracy throughout the three periods, according to the large effect size of the interventions. These findings demonstrate that repeated reading using Big Books helped the students become more fluent readers in English. The illustrations in the Big Books may also account for the impact on the students' reading. While reading the stories, students can relate the meaning to the pictures presented, keeping them engaged until the end of the story, as pointed out by Agustina (2018), Colville-Hall and O'Connor (2006), and Kuşdemir and Bulut (2018). Based on the suggestions of Colville-Hall and O'Connor (2006),

the stories also contain interesting plotlines that immerse the students throughout the story.

The repeated reading process also contributed substantially to increasing the students' ORF. This allowed for the identification of the words students were struggling with. Once identified, we first read and pronounced the word, with the student imitating the word. Reading the word and the story was repeated until the students were familiar with the pronunciation and had attained a satisfactory reading level, applying Samuels' (1979) approach. Repeated reading also allowed the students to decode the words automatically, following Samuels' (2007) work. Definitively, these interventions caused the students' ORF skills in English to improve. It helped students to read words correctly at a faster pace, have better reading accuracy, and decipher the meaning of the words.

## 6. Conclusions, Implications, and Limitations

Reading is an essential tool to educate children to become productive members of society. Due to the COVID-19 pandemic, the learning process of reading among students was disrupted, causing a decline in students' reading performance. This study aimed to address reading fluency and contribute to students' reading development in English. Specifically, it aimed to determine Grade 4 students' oral fluency in reading and the effect of repeated reading using Big Books interventions on their reading skills as they returned to regular classes. Findings indicate that most of the students had reading fluency skills below their grade level. Most students were at risk of reading difficulties and performed below the ORF benchmark based on the DIBELS benchmark goals. To address students' reading difficulties, we utilized repeated reading and prepared Big Books as interventions. The students' ORF scores significantly improved at the end of the assessment period. Conclusively, the interventions helped the participating Grade 4 students to become fluent readers in English. Considering the study's findings, using repeated reading and Big Books to support students' English reading achievement is highly suggested among elementary school teachers. It is a practical, direct approach that greatly supports teaching and learning and helps students get on track with reading. It will help develop competent readers, affecting their cognition in all areas of learning.

Although the employment of repeated reading using Big Books produces significant results, this study had limitations. The middle and end DORF monitoring assessments in this study were conducted within three weeks each. This is notably shorter than the DIBELS assessment frequency to be done at the beginning, in the middle, and at the end of the school year. Therefore, the results were collected briefly throughout the interventions. In addition, the study only focused on two reading fluency components: WCPM and accuracy rate. Hence, it does not describe the students' overall English reading skills. In addition, the sample size of the students involved was relatively small, which may limit generalization to a larger population. For future studies, it is suggested that longer intervals be observed within the three assessments in employing repeated reading and Big Books interventions. It is also suggested that more passages and stories be used to maintain motivation and foster a positive attitude toward reading

among students. Future studies may include other reading elements such as comprehension, vocabulary, phonological awareness, and prosody to assess students' overall reading capability. Overall, this study underscores the reading fluency and accuracy of students and the significant effect of employing repeated reading using Big Books to improve their English reading achievements. We hope that this study will stimulate further exploration and prompt positive changes in reading among elementary school students.

## **Author Contributions**

All authors contributed to the review-editing, literature review writing, and the conduct of the research. All authors contributed to data collection, acquisition, and analysis. All authors have read and approved the final version of the article.

#### **Conflicts of Interest**

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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